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Volume 53 JULY 1960 Number 7

the Journal

OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

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Bibliography: (1) Scott, J. S., & Kellaway, P.: *M. Clin. North America* 42:415 (March) 1958. (2) Ganoug, L. D., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, Williams & Wilkins Company, 1956, pp. 98-102. (3) Bray, P. F.: *Pediatrics* 23:151, 1959.

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Volume 53 Number 7

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REFERENCES: **1.** Gifford, R. W., Jr., *In* Hypertension, ed. by J. H. Moyer, Saunders, Philadelphia, 1959, p. 561. **2.** Moyer, J. H.: *Ibid.* p. 299. **3.** Brodie, B. B.: *In* Hypertension, Vol. VII, Proceedings Council for High Blood Pressure Research, Am. Heart Assn., ed. by F. R. Skelton, 1959, p. 82. **4.** Wilkins, R. W.: Ann. Int. Med. 50:1, 1959. **5.** Freis, E. D.: *In* Hypertension, ed. by Moyer, *op. cit.*, p. 123. **6.** Ford, R. V., and Nickell, J.: Ant. Med. & Clin. Ther. 6:461, 1959. **7.** Fuchs, M., and Mallin, S. R.: Int. Red. Med. 172:438, 1959.

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1. Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
2. Modell, W.: Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.

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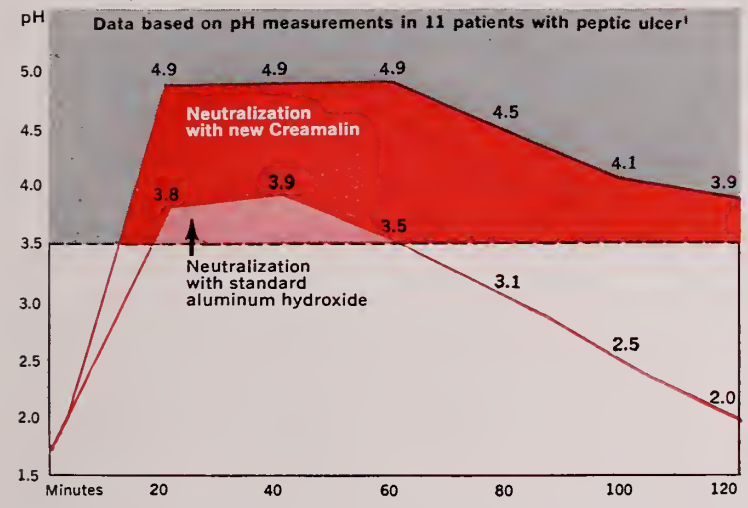
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1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:384, July, 1959.

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Another study found 96% of a group of 150 patients with rheumatoid arthritis were infected by *E. histolytica*. In 15 of these subjects, nine stool specimens were required to establish the diagnosis.[2]

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1. Cook, J.E., Briggs, G.W., and Hindley, F.W.: Chronic Amebiasis and the Need for a Diagnostic Profile, Am. Pract. and Dig. of Treat. *6*:1821 (Dec., 1955).

2. Rinehart, R.E., and Marcus, H.: Incidence of Amebiasis in Healthy Individuals, Clinic Patients and Those with Rheumatoid Arthritis, Northwest Med., *54*:708 (July, 1955).

3. Webster, B.H.: Amebiasis, a Disease of Multiple Manifestations, Am. Pract. and Dig. of Treat. *9*:897 (June, 1958).

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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Editorial

Clinical Sense
The Use of the Five Senses

After a winter of almost God-like relationship with patients successfully managed for influenza, pneumonia, bleeding peptic ulcer, gall-bladder disease, nephritis, broken bones and what have you, the physician comes to the summer months needing a vacation but also needing to take stock of himself and his place in the scheme of things. For him to do this in a pleasant and almost painless way, the Journal presents below liberal extracts from the Lettsomian Lectures delivered at the Medical Society of London by Richard Asher, M.D., F. R. C. P. on February 9-16, 1959. The editors of the British Medical Journal graciously granted their permission to reprint this article which was first published Saturday, April 2, 1960.

"Clinical knowledge depends upon three processes—observing, recording, and thinking. Each embodies a different use of the word sense. Observing requires a sense of perception—that is, skilled use of the senses; recording depends on the use of words in their correct sense—that is, the art of making sense; and thinking (which includes the processes of consideration, rumination, and deliberation) requires the use of a third kind of sense—the opposite of nonsense—a sense of wisdom. These three kinds of sense —perceptual sense, word sense, and common sense, growing from that one word, form a tripod which supports the whole structure of clinical medicine. In other words the art of medicine depends on the stimuli that enter the mind of the physician (or that structure corresponding to it in the surgeon), the processes that go on in that mind, and the resulting material produced by it.

"The stimuli enter by the five senses of perception. The recording and transmission of those stimuli largely depends on the use of words, which, according to their suitability and their arrangement, have a far greater influence on medical progress than is generally recognized. After which the processes going on in the mind, deliberations, rejections and ponderings, depend on sense: sense of perspective, sense of reality, sense of logic, plain sense, common sense, and even horse sense. Is sense of humour a necessity? No, it is not essential; but, like a catalyst, it facilitates and enhances the process; like a flavouring agent, without being essential, it gives taste to an otherwise unassimilable bolus of knowledge. Like the use of catalysts or flavouring agents the use of humour must be restricted, or it will interfere with what it should enhance.

The Suppressive Faculty

" When the experienced clinician takes a history from a loquacious patient, the many irrelevancies are unconsciously dismissed, like the meaningless squiggles in the picture. This suppressive faculty, by producing selective deafness, selective blindness and other sense rejections, can easily suppress significant or relevant things. The patient with attacks of acute abdominal pain may not be heard while she is describing the chronic rheumatism in her legs, but that very symptom can be the most important clue to the origin of her abdominal pains, because her "rheumatism" consists of acute lancinating pains like red-hot needles being jabbed into her. When her lightning pains are appreciated, it is easy to diagnose the abdominal pains as the gastric crises of tabes dorsalis. That is not an imaginary case. Two laparotomy scars witness to its truth.

" Thus clinical acumen does not vary with acuteness of the senses, though such acuteness is an advantage. The medical student who misses an aortic diastolic murmur almost certainly has better hearing than the consultant who teaches him to recognize it. Clinical acumen largely depends on the unconscious selection and rejection of sensory stimuli. In the plainer words of Polynesia, the parrot who belonged to that legendary clinician Dr. Doolittle, it depends upon being a good noticer.

The Gift of "Noticing"

"Two special kinds of noticing occur in the highest form of geniuses and in pioneers. The ability to notice the significance of what seems to be irrelevant, and the ability to detect what is common to several groups of data. An example of the first faculty is Sir Alexander Fleming's enlightened scrutiny of the penicillin mould which polluted one of his culture plates. Trivialities like that might fall on a million sense-organs before they blossomed into interpretation.

"A special word for this faculty—serendipity, was coined by Horace Walpole in 1754 and defined as 'the faculty of making happy and unexpected discoveries by accident'; but luck alone is not enough. You need to be a good noticer. Jane Austen wrote in *Emma*: 'Depend upon it, a lucky guess is never merely luck, there is always some talent in it.'

"To illustrate serendipity I show the x-ray film of a workman's shoulder, taken after he injured it at work. As you see, it shows no bony injury. Look again and see if you notice anything wrong.

"A little corner of lung is showing, and the late Dr. Whitehead, being fortunately serendipous, noticed it was abnormal and ordered a full size x-ray film of the lungs. This remarkable appearance was then revealed. This chance discovery (or rather chance wedded to perspicacity) led to the discovery of the pneumoconiosis caused by tin oxide dust, now known as "stannosis." Other workers at the same factory as this man had extensive changes, too, but because the condition produced no symptoms it remained unknown until this shoulder injury brought it to light. This gift of seeing the gold that glitters among the dross may depend upon negative observations; it includes what you do not see as well as what you do see, and what you do not hear as well as what you hear.

" 'May I call your attention to the singular incident of the dog in the night time,' said Sherlock Holmes. 'But the dog did nothing in the night time,' said Dr. Watson. 'That,' said Holmes, 'is the singular incident.'

" The second faculty of seeing what is common to apparently dissimilar patterns is of incalculable value, not only in clinical medicine, but also in passing the eleven-plus examination, where a familiar type of question is: 'Which of these have something in common,' followed by a diagram or a series of figures.

"The first stage in an important clinical discovery is often the observation that a series of puzzling cases, though differing in many ways, possess one factor common to all. The commonest cause of infantile blindness to-day is retrolental fibroplasia, and till a few years ago its incidence was steadily rising. It was noticed that it occurred far more in children born prematurely: that was a factor, but not the highest common factor. The highest common factor was that not only were all the blind children premature, but they had all been given oxygen. The detection of this common factor has protected hundreds of children from blindness.

"Here is another puzzling epidemic solved by 'noticing' (Kinnear, 1948) a most unusual common factor. In 1947 there was an epidemic of bullous erythema in Dundee. All the cases were women, and all the lesions were situated in a band across the back of both calves in exactly the same place. There were no marks on the stockings, so chemical burns were excluded. At the height of the epidemic one particularly observant patient noticed that her attacks of blistering of the calf always came on a few hours after travelling on a particular tram route; she also recognized many other people affected by the epidemic as fellow travelers on this

route. A careful inspection of all the trams was made, and it was found that one tram was responsible for the entire outbreak. In this vehicle there was a longitudinal groove in the slat of wood which held the seats in place. In this groove there was a thriving colony of bed bugs, just where the women's calves touched the wood when they sat down. It was clear that these bugs had reversed their normal mode of life, lying hidden at night when the tram was in the garage, and by day sitting in a row, feeding from the bounteous and constantly changing supply of calves presented to them. The tram was disinfested, the groove planed out, and the epidemic ended abruptly.

Sight

" Without doubt sight takes first place. The number of clinical data that can be seen is far greater than is available to the other senses. We see colour, shape, movement, position, expression, and a hundred-and-one indefinables. I will mention a few of each, starting with the colour of the face: the plum colour of the polycythaemia; the ruby colour of the alcoholic; the yellow colour of pernicious anaemia; and the cyanosis of congenital heart disease with arteriovenou hunt or that produced by inexperienced anaesthetists. I think Keats must have seen anaesthetic cyanosis when he wrote the lines: 'With beaded bubbles winking at the brim and purple stained mouth.' We also recognize different colours in the urina: *(a)* the yellow of normal urine, *(b)* the rose colour of anthocyanuria, *(c)* the iridecent pink of eosinuria, *(d)* the opalescent pink of haematuria, and *(e)* the greenish-blue colour of the urine when a patient is taking de Witt's kidney and bladder pills, which contain methylene blue.

"We distinguish shapes, too—the shape of the hands in acromegaly, the hands of arachnodactyly, and the deformed head of hydrocephalus.*

" While talking about the value of posture in diagnosis, I wish to describe the characteristic posture which occurs in a dreadful disease of which I have only recently become aware. It is an old disease which most physicians have encountered, but, until Dr. Russell Barton pointed out to me the characteristic posture and told me his views about its causes and treatment, I had observed it without being properly aware of its significance. Can you recognize it? It is institutional neurosis—that syndrome of submissiveness, isolation, loss of individuality, automaton-like rigidity, and loss of all initiative which occurs in people who have been in institutions for a long while. If it occurs in a mental hospital it is often believed to be an end-result of mental illness. This is not so. This dreadful thing is caused by institutional life and nothing more. It is not confined to mental hospitals, but is found all over the world in orphanages, prisons, convents, homes for displaced persons, prisoner-of-war camps, and the chronic wards of municipal hospitals.

"Because this disease has a characteristic posture, I include it in the use of sight in diagnosis. If I say more about it than other diseases with characteristic postures, it is because I believe it is less well-recognized than the other illnesses I have mentioned.

"People afflicted by this man-made disease have no resentment at what has been done to them; indeed, when the disease has got its grip on them they often resent efforts made to cure it. They are not interested in the future; they have developed a resigned acceptance that everything will go on as it is: inevitably, unchangingly, and indefinitely.

"Characteristically, the hands are held across the body or tucked behind an apron, the shoulders are drooped, and the head is held forward. Entries in the notes, if any are kept, give further confirmation of the diagnosis thus: 'Dull, apathetic, and childish' . . . 'Mute, dirty, and withdrawn'; or alternatively, 'Has settled down well' or 'Is cooperative, and gives no trouble.'

"The causes of this illness are: (1) lack of contact with the outside world; (2) enforced idleness; (3) lack of personal possessions; (4) regimentation by nursing staff; (5) drab, colourless institution atmosphere; (6) absence of prospects outside the institution; (7) excessive sedation.

"Though mostly afflicting those who lack

*During the lecture a series of lantern slides showed the various colours and shapes mentioned in the text.

initiative and energy the illness is not a primary condition. It can be prevented and it can be cured, but this needs unflagging energy and strength of purpose in those concerned.

Hearing

" Hearing is next in importance. I only consider the use of the naked ear unaided by instruments.

"The most important sound heard by a clinician is the voice of his patient. With myxoedema, the quality of the voice may be more diagnostic than the history related by that voice; it is low and thick and slow, with a croaking fumbling quality that is unmistakable.

"The speech may be clinically diagnostic in cleft-palate, diphtheritic palatal palsy, and myasthenia gravis; the myasthenic voice shows weakness and increasing nasal intonation as speech tires the palatal muscles. The immediate change after an injection of neostigmine is one of the most dramatic sound-changes in medicine. Slurred speech, classically described in G.P.I., is rarely diagnostic, because it may be caused by drunkenness, a sore tongue, or only slovenly articulation. A distressingly slurred, spastic speech, painfully crawling from one word to another, may be heard in disseminated sclerosis.

"A cough may be as revealing as the voice: the short painful cough of lobar pneumonia; the unique cough of pertussis—a diminuendo trail of little coughs with an apnoeic climax followed by the unmistakable, unforgettable whoop; and, commonest of all, the familiar sound of chronic bronchitis.

" . . . Everybody knows that noises from the abdomen are often audible outside, but, except for the borborygmi of carcinoid tumor, their importance is social rather than clinical. It is the absence of borborygmi rather than their presence which is significant, and a belly which is silent even to the inquiring stethoscope is likely to contain paralysed intestines. The most startling noise that ever comes from the abdomen is the cry of an unborn child. Numerous cases are reported when everybody in the obstetric theatre has distinctly heard the cry of the intrauterine child. The sound is usually short and muffled, but Livy reported that an infant of the Marrucini, while yet unborn, cried out in a loud voice from his mother's womb: 'Io triumphe,' which roughly translated means 'whoopee.' This case is not so well attested as the earlier examples to which I referred.

"Noises from joints are often and easily heard, so they should be mentioned here, but they have very little clinical value. A joint is capable of producing a great deal of noise with little disability. Another joint may be extremely painful on movement and yet produce no sound. All the same, I believe noisy joints are more commonly diseased than silent ones are, and a noisy joint is more likely to be the site of osteo-arthritis than rheumatoid arthritis. The sound made by moving a Charcot joint is supposed to resemble that of crunching snow; it is the feel of this noise rather than the sound of it which is characteristic, just as the sound produced by walking on crunching snow is felt through the boots as well as heard in the ears.

"As percussion of the chest involves unaided hearing, it deserves to be considered here. There is no doubt that stony dullness is a reliable indication of the presence of fluid: careful percussion of the chest may reveal fluid better than the chest x-ray film does. When there is little radiological evidence of fluid, but the percussion note is stony-dull in one place, then it is well worth aspirating for fluid there. Though percussion is considered with the use of hearing there is as much justification for inserting it in the section on the use of touch. In stony dullness the sign can be felt as much in the finger as it can be heard with the ear, and more in the finger that is struck than in the striking finger.

"I have difficulty in judging other grades of dullness. If I find that the right chest gives a less resonant note than the left, I would, if the history suggested right-sided pneumonia, consider there was an impaired percussion note on the right; whereas if the history suggested a left-sided pneumothorax I would accept that the left side was hyperresonant. Percussion gives me information about the relative resonances of the two sides rather than absolute information about one

spot. I am aware that when one side is duller to percussion than the other I am sometimes only observing that the pitch of the note is higher and that both sides give an equally loud and equally resonant note. I doubt whether many clinicians can distinguish alterations in pitch, tone, and volume; and even if they could be trained to do so I do not think great benefit would accrue, because, except for stony dullness, there is so little constant relation between the change in percussion note and the disease beneath. On the vexed question of percussion of the heart, I was taught that if I ever found an area of cardiac dullness when percussing a heart then there was a pericardial effusion. I think that was sound teaching.

Touch

"Touch is equal in value to hearing, and here I include all sensations detectable by the clinician's exploring hand. First, temperature. Although it is better to use a clinical thermometer than to place an old-fashioned hand on a fevered brow, quite often a clinician feeling the chest for expansion or palpating an abdomen for tenderness is struck by the abnormal warmth. The temperature may have been normal when the chart was filled in, and feeling the hot skin may convey an important change in temperature which might otherwise have been missed. The extra warmth of a bone affected by Paget's disease is also of diagnostic help. The feel of the skin in certain rare conditions can be diagnostic. In Cushing's syndrome the superficial layers of the skin can be pinched up separately, giving a sensation as if picking a thin fold of oilskin between the fingers. A grosser degree of skin levitation is both felt and seen in the rare familial Ehlers-Danlos syndrome.

" I am interested in which part of the hand is most sensitive to thrills. I have conducted trials with many students and found it remarkably constant. In every one I have tested it has been sited as the junction of finger and palm, mostly on the palmar aspect of the metacarpal heads. Try moving your hand over a faint thrill and you will find that is where you will feel it most easily.

"With grosser thrills there is no need for finesse, and any part of the body can feel it. In one unusual case I first noticed a thrill in my right knee. I was interviewing a chronic schizophrenic who had just told me that the B.B.C. were continuously transmitting radio vibrations throughout her body. As I approached her my knee touched the end of her bed, and I immediately felt the most intense vibration coming from her right leg, which was touching the bed-rail. She had multiple arteriovenous communications as a result of an accidental shot-gun wound several years previously. Her views about the B.B.C. were both inaccurate and coincidental.

" The most valuable of manual sensibilities is that obtained by palpation when feeling for swellings, an entirely different thing from palpation for vibrations, though called by the same name. Here we are using a combination of touch, sense of position, deep pressure, and joint sense. We do not perceive a constant sensation, but a change. We cannot palpate except with movement. The movements required, whether for palpating axillary glands or for the detection of splenomegaly, are highly skilled and developed only by experience and instruction. They are not amenable to description in the lecture room; so I do not discuss the art of palpation except to say two things about palpation of the abdomen.

"First, the convention of leaving the genitalia covered by bedclothes is kind to the patient but unhelpful to the clinician. The angle of the palpating hand is distorted by the heaped bedclothes. There is no elbow-room. The difference if all the bedclothes are pushed right back (leaving only a sheet if necessary) is remarkable.

"The second thing is that in a warm bed patients relax much better than on an out-patient couch. I have noticed several times when I have admitted someone from the out-patient department that a few hours later I can feel much more than before, and find lumps which I had previously missed.

Taste

" I remember about 10 years ago a baby had ascrites of such milkly whiteness that some of the wondering doctors thought it was milk which had leaked from a breach in the alimentary tract. Others believed it

was chylous ascites secondary to blocking of the thoracic duct. Dr. John Humphrey, our biochemist, was called in to settle the problem. He looked thoughtfully at a specimen of the fluid for a few seconds, and then gravely took a generous sip. Without hesitation he shook his head and said: 'That is not milk.' That is the only time I recollect the faculty of taste being of clinical use. But Matthew Dobson (who, we know, was a member of this Society) wrote these words in 1776:

" '*Experiment V.*—After evaporating two quarts of urine to dryness by gentle heat, there remained a white cake, which was granulated and broke easily between the fingers. It smelled like brown sugar, neither could it from the taste be distinguished from sugar.'

"That is the first time sugar was demonstrated in the urine of a diabetic, and provides a vivid example of the use of taste and smell in clinical science.

Smell

"The range of olfactory stimuli is large, but the information they convey is relatively small. Alcoholic breath is easily recognized, but may be misleading in unconscious patients because it is often the associated head injury and not the alcohol which causes the stupor. Acetone in the breath in diabetic coma and in children who have been vomiting is easily detected by those who have the gift. I am not able to smell it at all, and yet if somebody is taking off nail polish with acetone two rooms away, I am in no doubt about it. There is no doubt some people can smell something in diabetic coma. Two months ago a child operated on for suspected appendicitis vomited over the anaesthetist, who commented on the strong smell of acetone, and so revealed that diabetic pre-coma was the cause of the abdominal pain.

"Sir Eric Riches told me he does not believe that uraemia can be recognized by the smell of the breath, but the smell of urine inseparable from prostatic cases perpetuates the belief. I am convinced that this is true, for a continent patient dying of Bright's disease may have a grossly elevated blood urea with no uraemic smell about him. Has any scientific work identified the substances excreted in the breath of diabetics to establish which, if any, can be smelt. Is the acetone-like smell of diabetic breath due to acetone or some other volatile ester? Is the ability to smell this substance transmitted genetically like the abilities of 'tasters' and 'non-tasters' which are clearly distinguished by the use of phenylthiocarbamide? If the breath from patients with diabetic coma is bubbled through a liquid, will that liquid give a positive Rothera test? I am bothered that so little is known about these matters which might be settled experimentally, when other things of less moment are thoroughly investigated: for instance, it is well established that the urine of patients with the Lawrence-Moon-Biedl syndrome not only has a melanophore-expanding action on frogs, but produces in the minnow *(Phoxinus laevis)* a reddish discoloration around the bases of the fins.

The sickly faecal smell of melaena is diagnostic, but rarely of importance; the same applies to the pungent smell of paraldehyde in the breath. It is alleged that there is a mouse-like odour in typhus fever, but I have not enough experience to know if this is so. It seems likely to me that as typhus thrives among dirt and poverty mice are likely to thrive in the same place, and so the smell of mice may be due to mice making a smell.

"It is a common delusion among paranoid psychotics that a fearful odour emanates from their bodies. A foundryman attended my out-patient department complaining that a month previously a new and rare chemical was tried in the smelting process experimentally and that it had contaminated his blood so the fumes were still coming out all over his body. As I sat listening to him, tactfully angling for evidence of other delusions, the students behind me began to sniff restlessly, and I was uncomfortably conscious of an unpleasant, garlic-like smell which grew so strong the window had to be opened. His story was true in every particular. The chemical to which he had been exposed was tellurium, rarely used in the steel industry because of this distressing complication. If a minute amount of tellurium is absorbed, the body continues to excrete the noxious gas dimethyl telluride for many weeks afterwards.

Scientific Articles

Essentially, theory, principles, methods, variables, and the action nature of the approach all remain the same, whether we be emphasizing primarily the research investigative aspects, therapeutic aspects or the preventive applications, of child analysis. Each supplements and nurtures the other, often all of these being pursued, with varying emphasis, by one and the same person.

Research, Therapy and Prevention in Child Analysis*

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A CHILD PSYCHOANALYST can be asked flattering questions at times. For example, "What is there about psychoanalysis and its methodology that has made possible such real insight into the child's personality? In terms of the scientific literature, why is it primarily the psychoanalytic group that has been able to move in and dominate the field of child development?" These questions are based on a premise of accomplishment that is pleasing to the ear of anyone associated with psychoanalysis. Since I have had little to do with the achievements they suggest, I can answer such questions without risk of immodesty.

Psychoanalysis ordinarily refers to both psychoanalytic *theory* and psychoanalytic *therapy*. The theory consists of more or less integrated genetic, dynamic and structural hypotheses, and it is against this background that child psychoanalytic therapy has developed. Erikson,[1] in an attempt to define the characteristics of child psychoanalytic therapy, outlined certain essentials of child psychoanalysis. Regardless of its combination with other educational, environmental or therapeutic methods, child phychoanalysis consists of: 1—systematic investigation of still unconscious or unverbalized pathogenic associations between facts, fantasies and affect; 2—investigation of defense mechanisms developed in attempting to deal with the associations, and systematic interpreta-

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tion of these defense mechanisms to the patient; 3—continued observation of the patient until he has achieved both ego mastery sufficient to cope with his next maturational crisis and capacity to use his potential.

The child analyst's work is supported by a system of hypotheses, even though the hypotheses may be incomplete and the system not conclusive. Each analytic case he conducts is a research project testing theory. This is the child analyst's principal type of research—the kind with which he is most familiar. The hypotheses provide him with a frame of reference for clinical investigation. He may be obliged to start with concepts not always valid, but he can proceed knowing that he has check points for positive or negative evaluation.

The body of theory underlying child psychoanalysis gradually has grown and modified; it has become more thoroughly validated and integrated. Much of the theory derives from work with adults and psychotics and subsequently is tested in the sphere of child therapy and observation. In general, its mainstays have been the theory of instincts and the psychosexual development of the child, ego psychology and object relations, anxiety and mechanisms of defense, constitutional endowment, and environmental interplay (parents, acts of fate, and other pertinent factors).

Obviously, certain dynamic hypotheses are difficult to test by statistical means and must be recognized as the fruit of clinical impressions. However, as clinical experience has accumulated, more and more of the simpler hypotheses concerning child development and preventive psychiatry have been substantiated. Other hypotheses have undergone changes of emphasis in relation to the total body of knowledge. Even in a relatively short period of time, considerable change has occurred in the extent to which some of the above factors have been taken into account in child psychoanalytic therapy. Part of this change is a function of shifting emphasis in analytic teaching. I had occasion personally to experience this change. Ten years after I treated a six year old child, I treated his six year old sibling. In the earlier case I regarded the father and mother primarily as incidental figures necessary for the playing out of a stereotyped Oedipus complex. In the second case I placed greater emphasis on the detailed interplay between parent and child character structure in order to understand what had been taking place during the child's first six years.

The child analyst's daily work is in the area of personality interaction and he can scrutinize carefully transference and countertransference reactions and their effect on a patient's productions. This puts him in an advantageous position in the area of action research, which appears to be a most fruitful approach to studies of child development. As Ernst Kris[5] pointed out a few years ago, "pure" research may be applied to the study of growth and maturation in the absence of conflict involvement, but it does not adapt to situations where conflict does exist. We must accumulate our data from life and endeavor to assess the innumerable variables encountered, including our own presence and influence. Here the child analyst is very much at home.

A vast body of information is being gathered together from longitudinal and cross-sectional observations of children, total family situations, day care centers, residential nurseries and institutions. The data in some studies derive from special circumstances, such as studies during wartime, studies on orphaned and hospitalized children, and studies of children in penal institutions. Most child analysts work also with adults; therefore backward and forward reconstruction and direct observations may be integrated from a single person's experience. This is an invaluable asset in overcoming the barriers to shared experience that result from subspecialization.

These, then, appear to be the principal factors contributing to the current surge of activity in analytic research in child development. Another motivating factor deserves mention: therapeutic ardor sometimes has its repercussions in the improper appraisal of one's observations and experience. Child analysis, however, by the abovementioned definition blends together almost inseparably the goals of investigation and

application. Therapeutic applications (the diagnosis and meaning of certain disorders; prognosis; the most favorable therapeutic approach with parent and child, team or single therapist) are closely rooted in theory. For example, Dr. Richard Silberstein[5] referred to the "pervoid" or "pervision-like" nature of enuresis in children, as a direct instinctual expression. Further exploration will augment both our theoretical knowledge and our therapeutic approach to those disorders of children in which direct gratification of the instinctual component of the symptomatology is so prominent.

As parents have grown to recognize the benefits of child analysis, more of them have sought these benefits for children of an early age. This has brought closely together the field of developmental theory and the field of applied prevention, a development probably as important as any in the recent history of child analysis. Freud,[4] as early as 1918, alluded to the improbability of providing analytic treatment for the large number of persons requiring help. The need is enormous. It cannot be fulfilled by "direct suggestion" or "hypnotic influence," but it may be met partially by prevention through applied analysis.

Applied psychoanalysis is most useful with the child who is reacting primarily to direct external stresses and who has a minimum of internalized conflicts. This may be illustrated graphically and analogously with an open ended U-tube. One side of the U-tube represents child behavior, the other side the environmental atmosphere. The addition of liquid to one side of the U-tube causes a direct response of change in the level of liquid on the other side. This corresponds roughly with the situations in which direct interaction occurs between the environment and the young child. A great change, however, takes place approximately when the child reaches the age of six. As the superego develops, conflict between drives and controls is internalized to a considerable degree. The corresponding change in the illustration would be the insertion of a cork partially or completely obstructing the tube at its base. Shifting the level of the liquid on one side of the U-tube now no longer directly alters the level on the other side. Internalized conflicts no longer can be manipulated easily or modified simply by altering the child's external circumstances. A recognition of this fact is, in itself, an application of child psychoanalytic theory.

If we assume that the broad goal of a program of preventive child mental health is to enable the child to adapt gradually to the social and cultural milieu with a minimal impingement on or restriction of his instinctual expressiveness or creativity,[3] any approach to such a goal must consider a number of variable factors. Some of the factors have been described by Margaret Fries[2]; (a) the child's congenital activity type, (b) his physical status, (c) his mental capacity, (d) his age, (e) the type of life experiences the child undergoes, (f) the particular effect desired as a result of these experiences, and (g) the attitudes of the adults toward the child. Obviously, practical application cannot utilize a stereotyped or rigid approach but must be tailored individually to suit the variable factors involved. One major problem in teaching applications to either the student or the pediatrician is the lack of any simple generalizations that can be set down and applied and taught and used effectively.

Consider a simple example: the generally accepted concept that weaning should be a gradual process beginning near the end of the first year. We must take into account the child's congenital activity type. Variations in the intensity of oral drives appear to make a great difference. Whether the child is small and puny or healthy and robust has to be considered. Has the child recently undergone a severe illness or surgical procedure? Have his parents been separated from him for one reason or another? Has a new sibling just made his appearance? Certainly these would all be considerations. What are the adult's conscious attitudes toward the child; and, even more significant, what are the adult's unconscious attitudes? The pediatrician is confronted by an overwhelming host of variables. Can he influence or modify the child's development during this one period merely through transitory verbal contact with the parent? The

example I've used is a relatively uncomplicated application of psychoanalysis. How much more complicated is the application when it is transmitted through the conscious and unconscious attitudes of the future pediatrician whom we attempt to orient in the ways of applied psychoanalysis!

The application of psychoanalytic principles to aid the development of the child must be distinguished from the spontaneous and intuitive attitudes of sensitive and understanding parents who may never have heard of the Oedipus complex. Such parents provide an optimal situation that we are forever trying to approximate. We have acquired a body of knowledge that we wish to activate, to integrate smoothly, and to utilize in the daily interchange between parent and child. But, there is the danger of provoking parents into making "wild analyses" of their own. Unfortunately, even people who have had a fair amount of professional exposure to psychoanalysis may err in this respect. As one woman put it, "This psychoanalysis is great stuff. I read it one day and apply it the next." The application may be more a form of misapplication, such as repeated interpretations (usually incorrect ones) to the child of his every action. "You're picking on sister but its only because you're really jealous of mother's sleeping with me." Or even worse, "You want and insist on going swimming every single day only because it makes you feel like a little baby in mother's belly." For effective application of theory there must be a thorough marriage of intellect and feeling. Otherwise, the child is divested of all defenses and feels either like a goldfish in a bowl, or thoroughly confused.

On the other hand, the persons who contribute to the management of the developing child (i.e., the pediatrician, nurse, teacher, chaplain, social worker, psychiatrist, psychologist, and of course parent) will be better equipped if they are familiar with the common denominators in child development. This area is infinite in its scope, but in particular the following must be understood:

(a) the child's instinctual development and the foci of autoerotic activity and interest at various stages;

(b) the timing and nature of the child's ego responses to varying situations as he develops—for example, his fear of desertion around the latter part of the first year, his fear of loss of love during the second and third years, and his fear of mutilation in the latter part of the third, fourth and fifth years;

(c) the vicissitudes of the child's object relationships;

(d) the child's capacity for experiencing anxiety in various forms, usually recognizable as a defense against anxiety—for example, clowning, ego restriction, denial, and counterphobic attitudes;

(e) the conscious and unconscious attitudes of the parent and how these may influence the developing child;

(f) the effect of fateful circumstances (death, divorce, seductions, illness, etc.), and the variable significance of such circumstances depending upon the particular state of the child's development—for example, hospitalization and surgery for a child of eight months, compared with the same experiences of a child of five years.

At any given point, a state of equilibrium exists between the various forces operating within a young child's personality and those operating in his environment. A change in the direction, quality or intensity of any force is bound to produce a shift in the equilibrium. If the change is gradual, there is opportunity for compensatory psychological readjustment and mastery. If the change is too abrupt, the child is ill prepared to cope with it and to utilize it advantageously. A case in point derives from problems of dealing with the ego during the early months and years of life when it is subjected to threat of desertion and loss of love. As Doctor Gerald Pearson[7] has observed, parents are reassured to know that a child can cry for periods of five to ten minutes without being traumatized provided the child is comforted during that period of time. In this way the child's ego can be subjected to minimal frustration without being overwhelmed. This concept of ego management is of value to parents coping with the early sleep disturbances and separation anxieties

that occur during the second half of the child's first year, and again when he is eighteen months old. Progressively longer periods of separation, gradually increasing up to ten minutes of separation at a time, combined with comfort and reassurance, will help children, as well as their parents, through this period. Gradual moderate change offers an opportunity for adjustment and ego strengthening.

Discussion of applications of analytic theory to child development reveal two divergent opinions of the part played by the parents' unconscious. One view disregards it completely. The limitations of this attitude can be illustrated from my own personal experience at a time when, unfortunately, I was guilty of this error. A ten year old child complained to me that his mother never let him rest unless he was practicing the piano to become a concert pianist. If he read the comic books, his mother told him he should be practicing. If he loafed and listened to the radio, his mother said he should be practicing. If he went out to play ball, his mother warned him that he would hurt his fingers. When I saw his mother, I discussed with her the child's needs and the effect of her behavior upon him. I felt that my words had some effect, for she assured me she would never again mention piano practice to her son. When the boy revisited me, he offered the same complaint, so I asked him to elaborate. He explained, tearfully, "The nagging has stopped, but whenever I do anything but play the piano she goes into the other room and sits there crying, crying, crying!" This is an example of how intellectually accepted advice may be distorted in order to achieve the aims of the unconscious.

The opposite view holds the parents' unconscious in such awe that it completely disregards other determinants of the parents' behavior. When parental attitudes operate contrary to the theoretically optimal orientation, it is argued that no amount of conscious reeducation will be effective.

Obviously, we must consider the total resources of the parent. Instead of dividing the attitudes of the parent into strict categories of black and white, we should endeavor, in preventive applications, to capitalize on the intervening areas of grey. We have to consider, for example, ambivalent attitudes, the strength of the ego, plain ignorance, the influence of authoritative figures and the current trends of the neighborhood. Through positive transference, identification with the physician, education, and support by the doctor, parent and child may be assisted during a critical period in the child's development. Subsequently, parents may be able to take over and maintain a perfectly satisfactory relationship. Parents frequently do a better job with their second and third children than they do with their first. Many factors are involved, but one factor may be simply that of accumulated experience and increased confidence. Some parents may be helped with their first child in this area through the medium of ego support from a truly well-oriented pediatrician. Such help would constitute a non-specific application of psychoanalytic knowledge.

There are other specific instances in which theoretical knowledge and preventive measures may be integrated, such as the developmental problems of temper tantrums, of prolonged soiling and of stuttering in the two year old. We can understand the dynamic situation operating at the time of toilet training: the child's ambivalence, his fear of loss of love, his trading of anal instinctual gratification for the continued love of the parent.

We can apply these same principles in helping the parent deal with the temper tantrum so common at this period and usually of similar dynamics. The temper tantrum is often a consequence of the child's inability to resolve a conflict between his wishes and those of his mother. If he gratifies his own personal wishes, he fears the loss of his mother's love; conversely, if he complies with her wishes, he must renounce his immediate personal desires. In view of this, it is profitable to look for inconsistencies on the part of the mother that serve to accentuate the child's conflict by robbing him of a dependable external standard and by stimulating, repeatedly, his instinctual drive. Also, it is important to know if the parent is confronting the child with de-

mands too abruptly and too numerously, thus activating repeatedly the child's conflict situation. From these considerations may come a resolution of the tantrum problem. After the mother has set firm limits for the child and has given genuine indications to him of her continued love, he is better able to tolerate the non-fulfillment of his personal wishes.

Stuttering cases often make their appearance at the time of toilet training. In some cases, where the approach to training has been overly severe or inconsistent, the stuttering appears to be a displacement upward to the speech function of the training conflicts. A child can be given symptomatic relief very early by interrupting temporarily his training program and by supplementing his regime with some kind of oral gratification. Then, one can clarify with the parents the problems deriving from their approach to the child's toilet training and support them when the training is resumed.

A few children continue to soil and wet, day and night, for excessively long periods of time. This can reach a point of crisis in the mother-child relationship. The child seems to be going from bad to worse. Again, the situation may be helped if the mother, with outside support, desists completely for some months from all training activity. During this rest period her difficulties can be studied and a revised approach to training prepared. In three or four months, the child, given the opportunity, may actively take over his own training with very little help from his mother.

The child of four to six years of age who is very excitable, restless and "itchy" may be the victim of over-stimulation. His increased tension may have no outlet other than increased motor activity or excessive masturbation. Excessive stimulation may come from those around him in the form of sexual seductions, exciting sleeping arrangements, excessive immodesty, tickling bouts, etc. Discussion with and support by a trained person may carry the child through this period with a minimum of difficulty. Such situations, in their nascency are much more readily dealt with than their consequences.

The changing trend in education (particularly with respect to discipline), and its reflection in our social communities, has been held responsible for the changing character of psychiatric practice. Neurotic symptomatology has given way to a preponderance of character disorders. Some communities regard as deprivation the setting of realistic limits for a young child. A premium is placed upon "spoiling" him. This is seen in one father's report of his experience with his six year old child. He took his son to the park to fly a kite. First, the child dragged his kite carelessly on the ground and it was caught under a passing bicycle and broken. Next, the father directed the child's sister to provide her kite for the boy, and it too was soon broken. Grumbling, but not to be discouraged, the father went three city blocks to buy still another kite. By this time the wind had subsided and the kite could not be flown. On the way home the boy innocently asked his father, "Don't you think two kites is enough for one day, Dad?" The father had felt that under no circumstances should his child experience frustration or disappointment. (After all, the cost of 100 kites meant little to him.) His attitude reflected, in part, the climate in which he lived, which advocated a minimum of frustration and a maximum of indulgence as the formula for good mental health. The presenting complaint was that the child was immature for his age and excessively dependent.

Methods of dealing with a child's loss of a pet provide further opportunity for applied psychoanalysis. In certain communities, when a family pet dies, the parent rushes out to replace the pet before sundown, presumably so the child will not experience unnecessary suffering. Actually, a better procedure would be one that allowed the child to work through a period of mourning and adjustment to the loss before replacing the pet. Such an experience would provide the child with the opportunity for strengthening his ego and thus prepare him for future losses that are inevitable.

In some communities the standard procedure for initiating the treatment of any physical illness is a cleansing enema. Many

parents, if properly dealt with, are capable of modifying this regime to the advantage of the child, even though the modification remains within the limits of their own neuroses!

There is a regrettable tendency to regard developmental forces in more or less absolute terms. It is more helpful to think of them in terms of relative values. For example, consider the first born child raised by uncertain, overconcerned, overprotective and overindulgent parents. When he is expected to awake, they wait by his bedside to pick him up at the first stirring, lest he cry and feel deserted or unloved. Their attitude probably is a distortion of some kind of analytic teaching. In spite of their continued protectiveness, the child reaches an age when certain minimal but inevitable frustrations come his way: the requirement that he exercise control over his bowel functions, or the need to adjust to a newborn sibling. When confronted with these routine crises, he may appear to be overwhelmed. He has neither the ego strength nor the experience with frustration to cope with them. His response cannot be evaluated properly if done solely in terms of the current demands on him. The current demands must be considered in relation to the minimal demands that have preceded them. Yet, repeatedly, such situations are viewed only on a cross-sectional level; there is a tendency to disregard as irrelevant the child's prior life experience, since it has been so brief. Stress that is insignificant and minimal in absolute terms may be overwhelming in relative terms, and no fixed formula of preventive measures is available, nor would it be appropriate.

The pediatrician, probably more than any other trained person, sees in large numbers of children the earliest manifestations of future problems. He has the first opportunity to evaluate early difficulties properly and professionally. He must understand what use can be made of applying analytic principles, but he must also be able to differentiate the cases in which it is indicated from those in which its application would no longer be effective. To disregard these limitations of applied psychoanalysis can result only in frustration and confusion for both the pediatrician and the parent.

Consider the child living with a person who suffers from severe neurotic disturbances. Because of his illness, this person persistently will sabotage or prevent any attempt to modify the child's situation. Obviously, specialized attention is indicated in such a case. Another instance is the child who already has internalized his conflicts. Pathogenic and distorted associations have been repressed and now influence the child's behavior in spite of environmental modifications. He requires either psychotherapy or psychoanalysis.

Among the unlimited areas in which the pediatrician *can* contribute toward a favorable total result is the realm of medical and surgical procedures. This subject deserves fuller consideration than I can give it at this time, but I will note one lesson that child analysts have learned. A child has distorted fantasies of the reasons for hospitalization and for medical and surgical procedures. If these distorted conceptions are uncorrected, they are repressed and encapsulated in the unconscious. They continue to exert an influence upon the child's responses to life situations. The child's behavior will be inappropriate (proportionate to the degree of distortion of the original fantasies) for the rest of his life. These untoward effects can be minimized if the child is given a realistic explanation of the medical and surgical procedures before they are performed and if the child is listened to afterwards and his misconceptions are corrected.

A dramatic case, recently seen on the children's ward of Hahnemann Hospital (Philadelphia) illustrated several points. A little girl of four months came to the hospital from a foundling home for a severe tracheobronchitis with labored respiration. Soon after admission a tracheotomy had to be performed. After the tracheobronchitis cleared, and even after subsequent x-ray films showed nothing in the lungs, obstruction of the tracheotomy tube continued to cause the child to gasp, choke and turn blue. Doctor F. Robert Holter, a child phychiatrist at Hahnemann, became in-

terested and worked with little Diane. He observed that she would go through the gradual cycle of waking from her sleep and stirring, but at the point where a normal child might utter a cry or a few sounds and move her arms and legs about, Diane could not. Handicapped by the tracheotomy tube, she could not cry normally; her arms had been partially restricted, lest she remove her tracheotomy tube when alone. It seemed that she would start to rattle and gasp, evidently as a result of beginning secretion. The nurse, hearing these noises, would immediately institute suction. The child would become more disturbed and more frightened. Still unable to cry adequately, the child would produce more secretion, whereupon the nurse would apply more suction. The question arose whether this child's increased secretory activity and edema were a true psychosomatic phenomenon, a displacement and expression of her inability to cry and discharge affect as well as motor tension. On the basis of this hypothesis, as the child was coming out of sleep and moving into the tension stage with wet and noisy respiration, she was held, comforted and played with. The child gradually breathed more easily and the need for suction was eliminated. Following this regime, it was possible at times to obstruct the tracheotomy tube for periods as long as five or six minutes while holding the child.

However, this story has another lesson: the same nurses and attending personnel who had previously dealt with Diane in an impersonal and dutiful way now, following the lead of the child psychiatrist, began to take an active interest in the child. They played with her much more. They allowed her much more motor release. They frequently held Diane and tried to facilitate her recovery along the lines suggested by us. When Diane had to be transferred to another hospital, the head nurse continued to pay her regular visits, taking pleasure in her progress. She even chided the psychiatrists for not having visited Diane, who had now become something more than just another patient. Whereas unconscious factors certainly existed in the individuals attending the child, there was sufficient potential for modification, given the necessary information, the opportunity and encouragement, supplemented by a positive transference to the person instituting the modifications.

In summary, we see that research investigation, therapy and preventive application in child psychoanalysis are made of the same stuff. They are pursued with varying emphasis by one and the same person. The theory, principles, methods, variables, action nature of the approach, all are applicable in each of these three areas. Each supplements and nurtures the other. As a result of this unusual and fortuitous combination of circumstances, the entire field is in an active state of growth.

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Pernicious anemia has not been previously reported in the American Indian. The following reports six cases and problems of diagnosis in this race.

Pernicious Anemia in American Indians

Report of Six Cases

JAMES E. HAMPTON, M.D.

James Edward Hampton, M.D., graduated from the University of Tennessee Medical School in 1954. He is now completing his third year residency in internal medicine at the City of Memphis Hospitals, Memphis, Tennessee. One and a half years of his residency was served at the University Hospitals in Oklahoma City.

At the time work was done on this paper, the author was fulfilling his military obligation with the Division of Indian Health, Department of Health, Education and Welfare.

PERNICIOUS ANEMIA is characteristically a disease of the temperate climate affecting chiefly the white race. It is also said to be more common in persons with blue eyes whose hair has turned prematurely gray. These patients commonly have a wide jaw angle and are of a large and bulky frame. Friedlander[1] reviewed the racial incidence of this disease in 1934 and showed it to be rare in Negroes and comparatively rare in the dark-skinned white groups, examples of which are Italians and Greeks. It is rather uncommon in Jews, very rare in Orientals and only a few cases have been described in the Asiatic Indian by Taylor and Chippara.[2] DasGupta[3] reported three cases in Asiatic Indians in 1945. Persons of Oriental descent are somewhat affected although quite uncommonly.

A review of the literature of the past 10 years, including the older textbooks of hematology, was not revealing of any specific cases of pernicious anemia in full blood American Indians. The first three of the following cases were under the author's care during a two year service in a 70-bed U. S. Public Health Service Indian Hospital at Claremore, Oklahoma, from 1957 to 1959. This hospital provides general medical and surgical services and has a regular outpatient clinical load of approximately 10-11,000 patient visits per year. The last three cases were collected from other hospitals over the State of Oklahoma.

Case Report

CASE NO. 1, R.G. #15970, 62 year old male of Tulsa, Oklahoma. This patient is a full blood Choctaw Indian. An investigation

of Indian blood quanta among the grandparents confirms the fact that he is a full blood Indian.

This patient was admitted to the PHS Indian Hospital at Claremore on March 31, 1958, and discharged 16 day later. A previous diagnosis of pernicious anemia had been made at another Indian Hospital in 1956, but no bone marrow examination or biopsies were done. The chief complaints were paresthesia in the hands and feet for two months and anorexia. There was no difficulty in walking in the dark and no bleeding tendency. In 1948 there was the insidious onset of weakness, but a physician was not consulted in regard to this until 1952. Two blood transfusions were given at that time and the patient was told to take liver shots three times per week. The patient continued these for several months and then discontinued them of his own volition. Weakness recurred one year later and another physician was consulted and liver injections resumed. Two months prior to admission he was hospitalized elsewhere and given 1,000 mls of blood. There was no history of soreness of the tongue, weight loss, enlarged lymph nodes or difficulty in walking. The patient stated that he had been taking proprietary vitamins regularly. The family history was non-contributory.

On physical examination the blood pressure was 92 systolic and 70 diastolic (mms. of mercury), apical pulse 60/min. The patient appeared pale and chronically ill. The fundi were negative. Many teeth were missing and the tongue appeared somewhat smooth but showed no unusual redness. The liver edge descended 2-3 cms. below the right costal margin on inspiration. The spleen was not felt. There was good vibratory sense in the lower extremities and the rest of the physical examination was within normal limits.

Laboratory: Urinalysis: normal. Chest x-ray showed an old fibrotic process in the right lung of unknown etiology. Stool examination was negative for blood and parasites. Hemoglobin was 6 gms.%; hematocrit 23; red blood count 1.9 million per cubic mm. MCV 120 cubic microns; MCH 31 micromicrograms; MCHC 23%. There was no free gastric acid after the injection of histamine. The white blood cell count and differential were normal. The peripheral blood smear showed anisocytosis and poikilocytosis of the red blood cells, and these generally appeared somewhat large. The reticulocyte count on admission was 0.3%. An hepatic vitamin B-12 uptake study was done on this patient by the Veterans Administration Hospital in Oklahoma City, Oklahoma, with the result of 1.41% (normal value being 4.7-15%). Bone marrow examination was not done.

The patient was next given 50 micrograms of vitamin B-12 daily over a period of two weeks and hemoglobin rose to 10.5 gms.%. Three days after the start of vitamin B-12 the hemoglobin had risen to 7.5 gms.% with a red blood count of 2.2 million per cubic mm., and 5 days after the start of vitamin B-12 the hemoglobin was 8 gms.%, with a reticulocyte count of 7%. Ten days after the start of vitamin B-12, the hemoglobin was 10.5 gms.%, the reticulocyte count 7.0%. The patient has been followed in the out-patient department receiving monthly injections of vitamin B-12. The last clinic visit was 13 months after his discharge. His hemoglobin was recorded at 14.5 gms.% at that time, and the patient was clinically asymptomatic. It is noteworthy that there were no signs of subacute combined degeneration in this patient.

CASE NO. 2, O.T. #11690, a full blood Creek Indian. Patient's investigation of his family tree confirmed his complete Indian descent.

This 66 year old Indian of Sapulpa, Oklahoma, was hospitalized at the PHS Indian Hospital at Claremore in January 1958, with eczema of the lower extremities. Hemoglobin was 11 gms.%; stool examination was negative for occult and gross blood at that time.

Physical examination at that time was unremarkable except for eczema of the lower extremities. He returned to the hospital again five months later on June 27, 1958, with dyspnea of three weeks duration, stating that he could walk only ten or fifteen steps before stopping for breath. There was

a sensation of syncope on assuming the erect position. Orthopnea, pain, and paresthesia were denied. There were no complaints of nocturnal dyspnea or soreness of the tongue. Dietary history showed the patient to have no meat in his diet, and he was noted to be a bachelor who lived by himself. Only soft foods were consumed since the patient has been edentulous for several years.

Physical examination: The patient appeared pale and had a lemon-yellow colored skin. Blood pressure was 170 systolic and 90 diastolic (mms. of mercury). The fundi showed a central opacity in the right lens, totally occluding the pupil. The left fundus showed three flame shaped hemorrhages with several small white exudates. The tongue was very smooth. Vibratory sensation was present in the lower extremities. The physical and neurological examination was otherwise within normal limits. There was no family history of any anemia.

Chest x-ray was compatible with slight generalized pulmonary emphysema. There was also slight prominence of the left ventricle. An upper gastrointestinal series was done on July 15, 1958, and was essentially normal.

Laboratory: Hemoglobin 4.5 gms.%. Red blood count 720,000 per cubic mm.; hematocrit 10%. MCV 138 cubic microns, MCH 56 micromicrograms, and MCHC 40.5%. White blood count 3,500 per cubic mm. with 56% neutrophils, 43% lymphocytes, and 1% eosinophils. The reticulocyte count was 1%. The peripheral blood smear showed the usual findings of pernicious anemia and red cells appeared somewhat macrocytic. Urinalysis: normal. There was no free gastric acid after histamine stimulation. Serologic tests for syphilis was negative. Stool examination was slightly positive for occult blood. Serum iron was 200 micrograms per cent by the Teders method. (Normal value, 56-183 micrograms per cent.)

Because of the dietary history compatible with iron deficiency anemia, the patient was placed on ferrous sulfate 0.3 gram, three times a day between meals, but after ten days the hemoglobin had not changed appreciably. On July 3, 1958, a right iliac crest bone marrow aspiration was done and this was reviewed by the University of Oklahoma Hematology Laboratory. The impression was: megaloblastic bone marrow with megaloblastic series representing 58% of the total cells seen.

Approximately two weeks after admission the patient was placed on vitamin B-12, 30 micrograms per day intramuscularly with a gratifying rise of hemoglobin to 8.6 gms.% within six days and a reticulocyte count of 5.5%. The hemoglobin continued to rise until at was 10.5 gms.% one month after the institution of vitamin B-12 therapy.

Hemoglobin one month after discharge was reported at 12.5 gms.% with 4.3 million red blood cells per cubic mm., hematocrit 44. An hepatic vitamin B-12 uptake study was done in August 1958, at the Veterans Administration Hospital in Oklahoma City, Oklahoma, with the results being 0.28%. (Normal value 4.7-15%.) He was last seen in the out-patient department nine months after discharge. Hemoglobin at that time was 16.0 gms.% and he was asymptomatic.

CASE NO. 3, E.P. #17838, this 46 year old full blood Potawatomi Indian of Kansas was first admitted to the PHS Indian Hospital at Claremore on March 12, 1959. A rather extensive review of the family tree confirmed her total Indian descent. Chief complaint was weakness, dizziness, and headaches for two and a half months. She gave a history of being anemic in 1951 and of having received liver shots from a local physician every other week for two years; she was asymptomatic during that period. There was amenorrhea from July to December of 1958, and she had noticed a hard mass in her lower abdomen for the previous eight months. The hair was noted to prematurely turn gray at age 27. There was no history of any soreness of the tongue or difficulty in walking, but she had had some decrease in memory for the last two years. The patient's mother died of anemia at about the time of the menopause, but no definite diagnosis was made so far as the family knows. There was no history of any bleeding tendency and the rest of the history was non-contributory.

Physical examination: Blood pressure 118 systolic, 78 diastolic (mm. of mercury).

Radial pulse 98/min. The patient was pale and approximately one-half the hair was gray. The pupils and fundi were normal. There was a Grade 1 to Grade 2 systolic murmur heard over the entire precordium. The tip of the spleen was felt on inspiration. There was a large mass extending from the pelvis to two centimeters above the umbilicus which felt quite firm, round, and smooth. The cervix was thin, dilated 2½ to 3 cms. and had a hard white firm tumor presenting at the cervical os; there was no active uterine bleeding.

Rectal examination was negative and the stool was noted to be brown in color. There was a trace of edema of the legs; position and vibratory sense in the lower extremities was normal. There was some slight atrophy of the papillae of the tongue but the rest of the physical and neurological examination was within normal limits.

Laboratory: Hemoglobin 5.6 gms.% ; red blood count 1.9 million per cubic mm.; hematocrit 19; MCV 95 cubic microns; MCH 28 micromicrograms; MCHC 29%. Serum iron was 200 micrograms%. (Normal value 56-183.) Icterus Index and urinalysis were normal. Reticulocyte count on admission was 0.8%. There was no free gastric hydrochloric acid after histamine stimulation. Cephalin flocculation was 3 plus at 24 hours and 4 plus at 48 hours with a normal serum bilirubin and alkaline phosphatase. Several stool examinations were negative for occult blood. An upper gastrointestinal series showed no abnormalities of the esophagus, stomach or duodenum. Sternal bone marrow examination was done on March 26, 1959, and reviewed by the Hematology Department of the University Hospitals, Oklahoma City, Oklahoma; it was agreed that this was a megaloblastic bone marrow and that the diagnosis of pernicious anemia was very likely. Eight days after admission, the patient was started on vitamin B-12, 30 micrograms intramuscularly daily with the rise of hemoglobin to 10 gms.% in 16 days. There was a corresponding rise of the reticulocyte count, the greatest rise being around the eighth or ninth day after therapy was begun. On April 13, 1959, the hemoglobin began to drop somewhat because of heavy menstrual bleeding, but several days after giving ferrous sulfate 0.3 grams twice a day between meals, the hemoglobin rose to 10.5 gms.%. On April 23, 1959, a rather huge uterine leiomyomata was removed from the left broad ligament and a total abdominal hysterectomy was done. The postoperative course was normal and hemoglobin at the time of discharge was 10.5 mgs.% with a reticulocyte count of 1.4%. She was discharged on 60 micrograms of vitamin B-12 intramuscularly every four weeks.

CASE NO. 4, R.C., was admitted to the PHS Indian Hospital at Tahlequah, Oklahoma, February 11, 1958. This patient was a full blood Cherokee male of Stilwell, Oklahoma, who had had several past admissions for anemia and cardiac failure, but the etiology of the anemia had not been determined. The chief complaint on admission was increasing malaise, headache, anorexia, dyspnea, and lassitude for several months. The rest of the history was unremarkable.

Physical examination: The patient appeared chronically ill and in no acute distress. There was definite pallor and also a yellowish tint to the skin. A Grade II systolic murmur was heard over the entire precordium. The liver edge could be felt at the right costal margin but the spleen was not palpable. Position and vibratory sense were intact in the lower extremities, and the rest of the physical and neurological examination was normal.

Laboratory: Urinalysis was normal. WBC 7,000 per cubic mm., 58% neutrophils, 34% lymphocytes, 4% monocytes, 3% eosinophils, 1% basophils. Red blood count was 1,590,000 per cubic mm., hemoglobin 6.5 gms.%, hematocrit 20. MCV 127 cubic microns; MCH 50 micromicrograms; and MCHC 32.5%. A stained blood smear was rather typical of pernicious anemia showing anisocytosis, poikilocytosis, polychromatophilia, and moderate basophilic stippling. Reticulocyte count was 1.3%. There was no free gastric acid after histamine stimulation. A sternal bone marrow aspiration was done and examined at the National Institutes of Health, Bethesda, Maryland. The report stated that there were only scat-

tered marrow cells but erythropoiesis was clearly megaloblastic in type, compatible with pernicious anemia. On February 18, 1958, therapy was begun with parenteral vitamin B-12. Four days after the institution of therapy the reticulocyte count was 18%. Seven days after the institution of therapy, the hemoglobin was 7.5 gms.% with reticulocyte count of 14.3%. An upper gastrointestinal series and chest x-ray were both normal. Unfortunately, the patient did not return to the hospital for any follow-up studies.

CASE NO. 5, G.T. #2228, this 42 year old full blood Cheyenne Indian female was admitted to the PHS Indian Hospital at Lawton, Oklahoma, on December 20, 1956 and discharged ten days later. She had been referred from another Indian Hospital with massive epistaxis and anemia. Two months before admission she began noticing weakness, weight loss, polyuria, and polydipsea. One month before admission she noticed that her skin and sclerae were of an unusual yellowish color. She was admitted to another Indian Hospital on October 11, 1956, with epistaxis, and was given 1500 mls of blood after her hemoglobin was determined to be 4.2 gms.% with a WBC of 2,900 per cubic mm. After the transfusions and the institution of iron therapy, the hemoglobin rose to 9.5 gms.%. The diagnosis was suspected to be blood loss anemia. She was readmitted to the same Indian Hospital on December 12, 1956, with epistaxis; hemoglobin was 12 gms.% and Icteric Index 17.7. Prothrombin time was elevated at 20 seconds and there was no free gastric acid after histamine stimulation. At that time she was given 1500 mls of blood; vitamin K, hexavitamins. Ferrous sulfate was also started. She was placed on vitamin B-12, 50 units, intramuscularly daily on December 18, 1956, by the referring hospital. She continued to have epistaxis and was thus referred to the PHS Indian Hospital at Lawton two days later. The past history and review of systems was unremarkable except that the patient had had bright red bleeding per rectum for the past few weeks prior to admission. She also complained of fatty food intolerance.

Physical examination: The patient was a well developed female who appeared very weak and lethargic, pale, and had a yellowish tint to the skin. There was a nasal pack in the left nares. Blood pressure 112 systolic, 74 diastolic (mms. of mercury). Temperature 100°, peripheral pulse 70/min. The hair was mostly gray. There were many carious teeth and the mucous membranes appeared icteric. There was a soft Grade I systolic murmur over the entire precordium. The abdomen showed evidence of recent weight loss as did the extremities, but there were no masses palpable. The liver was palpable four finger breadths below the right costal margin. The gait was wide spaced and ataxic, and vibratory sense in the lower extremities was absent up to the mid leg area. Proprioception, pain and touch did appear present in the lower extremities, however. There was no evident ecchymosis on the skin.

Laboratory: Chest x-ray was normal. WBC 4,450 with a normal differential. MCV 74 cubic microns; MCH 25.5 micromicrograms; MCHC 35%. Bleeding time 1 minute; coagulation time 4 minutes. Platelet count 65,731 per cubic mm. Blood type O positive. Icterus Index 10.5 units. Prothrombin time 18 seconds. Thymol Turbidity 5.5 units with cholesterol 109 mgs.%. Reticulocyte count 3%. Urinary urobilinogen positive in normal amounts. FBS 101 mgs.%. Serologic test for syphilis was negative. Urinalysis—negative. NPN 16.5 mgs.%; total protein 7.2 gms. with a 1.0 ratio. Clot retraction time was 2½ hours. Cephalin flocculation 3 plus at 24 hours and 4 plus at 48 hours. There was no free gastric hydrochloric acid after histamine stimulation. The Rumple Leed's tourniquet test was negative. Total serum bilirubin was 1.05 mgs.%. Twenty-four hours after admission the nasal pack was removed and a bone marrow aspiration was done. There were very few marrow elements present in the specimen although there were one or two typical megaloblasts seen. After the bone marrow aspiration, the patient was given 1000 mls of whole blood; 50 mgs. of vitamin K-1, intravenously; and a high protein diet with vitamin supplements. The case was discussed with two consultants in

internal medicine, and it was believed that —in view of the blood picture of normocytic anemia, thrombocytopenia, relative leukopenia, and absence of free gastric hydrochloric acid, together with lemon-yellow color of the skin and neurologic changes in the lower extremities—this patient presented a picture of pernicious anemia with subacute combined degeneration of the spinal cord. This diagnosis tended to be confirmed by the presence of megaloblasts in the bone marrow and a reticulocyte count of 9% six days after the initiation of vitamin B-12 therapy. The anemia was thought to be normocytic due to the presence of blood loss, which in turn was caused by the thrombocytopenia. The patient, therefore, was continued on vitamin B-12, 100 micrograms a day for a week, when she rather suddenly left the hospital against medical advice, and has not been seen since. At the time of discharge her hemoglobin was 10 gms.%, RBC 4.4. million per cubic mm.; WBC 7,000 per cubic mm.; with 53% neutrophils; 49% lymphs; and 8% eosinophils. The reticulocyte count was less than 1%. The patient seemed to be better oriented, but the gait was still ataxic and the vibratory sensation was still absent in the lower extremities.

CASE NO. 6, J.J.B. #5224-136B2, this 50 year old full blood Arapaho Indian male was first thought to have pernicious anemia in February 1957. At that time a sterno-marrow aspiration done at the Veterans Administration Hospital, Oklahoma City, Oklahoma, revealed megaloblastic bone marrow. The patient was admitted on January 6, 1959, to the Veterans Administration Hospital, Oklahoma City, complaining of hemoptysis, which occurred five days prior to admission. The patient had had a previous diagnosis of bronchiectasis of the right lung.

Past history was significant in that the patient had rheumatic fever at age 18 and in 1954 was admitted to the Veterans Administration Hospital with heart failure secondary to rheumatic heart disease, with mitral stenosis, aortic stenosis, and aortic insufficiency. He has been on digitalis since. In 1945 he was hospitalized for macrocytic anemia with loss of vibratory sensitivity over the right lower extremity. In 1951 there was an episode of hemoptysis with passage of a large blood clot; at this time the patient was found to be anemic and was treated with a transfusion of 2000 mls of blood. Bronchograms were done in 1952 confirming the diagnosis of bronchiectasis. In 1957 he was admitted for anemia and treated successfully with vitamin B-12. His pernicious anemia has been subsequently proved by the clinical course as well as radioisotope studies at the Veterans Hospital. The anemia has been well-controlled on periodic injections of vitamin B-12.

Physical examination: Blood pressure 110 systolic, 70 diastolic (mms. of mercury). Peripheral pulse 80/min. Respiration 18/min. Temperature 98.6°. The patient appeared to be poorly nourished and chronically ill but in no acute distress. The skin was dry and warm and there was some clubbing of the nails but no cyanosis. There were coarse rales heard in both lung fields. The apex of the heart was over the anterior axillary line in the fifth intercostal space and a systolic thrill was heard over the apex. The first mitral sound was increased in intensity with a Grade III diastolic murmur heard at the apex. A Grade I systolic murmur was heard over the aortic area. The liver was two fingers breadths below the right costal margin; the spleen was not palpable. Bilateral varicose veins were present.

Laboratory: WBC 5,600 per cubic mm.; hemoglobin 12.5 gms.%; hematocrit 43%; sed rate 31 mms. per hr. Bleeding and coagulation time were normal. Serology was negative. Urinalysis was normal. Sputum cultures were negative. Chest x-ray, although showing signs of bronchiectasis, showed no signs of change from previous examinations. The electrocardiograms showed left atrial hypertrophy. A vitamin B-12 hepatic uptake study was done with the result of 1%. (Normal value—4.7-15%.) The main diagnostic work which indicated previous anemia was done in 1957 and the hepatic vitamin B-12 uptake study was done in confirmation of this since his blood studies were now normal while taking vitamin B-12.

Comments

The presentation of cases of pernicious anemia in American Indians presents several difficulties. Indian health facilities in the United States have been inadequate, good diagnostic laboratories have been scarce, and some medical records for many years are incomplete. In July 1955, the United States Public Health Service assumed responsibility for the Federal Indian health program—in the United States and Alaska, and these three deficiencies now have been partially or completely corrected. The second major problem lies in the fact that American Indians have integrated to a considerable extent with the Caucasian race, and one must be careful in documenting the fact that an American Indian is of Indian descent only. The third problem lies in making a correct diagnosis of pernicious anemia. A report[4] from the PHS Indian Hospital at Lawton, Oklahoma, states that since 1951 they have had five additional cases of pernicious anemia in full blood Indians diagnosed in that hospital. The records and diagnostic work-ups, however, were not adequate for reporting.

In the preceding cases the criteria for the diagnosis of pernicious anemia were the presence of a macrocytic anemia in insidious onset, the absence of free gastric hydrochloric acid after histamine stimulation, a typical peripheral blood smear, a megaloblastic bone marrow and/or diagnostic vitamin B-12 uptake study coupled with a characteristic clinical response to daily vitamin B-12 therapy. Neurological disturbances were noted in these patients but were not regarded as necessary for diagnosis. Gastric radiologic examination was done when possible.

Summary

Six cases of pernicious anemia in full blood American Indians are reported. Previous case reports of pernicious anemia in the American Indians were not found in the medical literature. Some of the difficulties of diagnosis and reporting of this disease are discussed insofar as this race is concerned.

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BELLADONNA, *n.* In Italian a beautiful lady; in English a deadly poison. A striking example of the essential identity of the two tongues.

From the Devil's Dictionary by Ambrose Bierce
—Sagamore Press, Inc.

Femoral Hernia Sac Abscess

A Case Report

JAMES A. WEBB, M.D.

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Among other activities, Doctor Webb is an Instructor in Anatomy and Physiology at the Ponca City School of Nursing.

INTRA-ABDOMINAL abscesses are not unusual complications following ruptured viscera but abscesses within hernial sacs are apparently rare or at least are rarely reported. Certainly the author had never seen nor heard of a hernial sac abscess until he encountered the patient who is the subject of this case report.

G.M. (Ponca City Hospital Case No. 106022) was a 78 year W/M retired hammermill worker who was well until about November 1, 1959 when he developed intermittent burning epigastric pain unrelated to meals. The pain became extremely severe on the evening of November 14 and he consulted his family physician who referred him to the author with a diagnosis of perforated duodenal ulcer. His past history and review of symptoms were non-contributory to his present illness except that he had had a small reducible hernia for many years.

Physical examination revealed T-99.6° F., P-96, R-20, and B.P. 110/70 mm Hg. Signifcant findings were limited to the abdomen which was flat but which revealed marked rigidity throughout. There was an easily reducible right inguinal hernia. Bowel sounds were present but diminished.

Laboratory Data: Urinalysis—normal, hemoglobin 9.2 gm %, WBC 7,900. Radiographs of the abdomen showed a moderate amount of free air within the peritoneal cavity.

Course in Hospital: The patient was given 500 cc whole blood and hydrated and taken to the operating room where a laparotomy through a short right upper quadrant incision was performed. A typical perforated duodenal ulcer was encountered on the anterior duodenal wall which was closed. His post-operative course was uneventful except that three days prior to discharge he developed what was interpreted to be an incarcerated inguinal hernia. He refused operation and was discharged against medical advice.

He was not seen again until December 4, 1959 at which time the "hernia" was still incarcerated and he was persuaded to enter the hospital. On December 7, 1959 he was again taken to the operating room and through a transverse right inguinal incision the inguinal canal was approached. Only following exposition of the cord did it become apparent that the hernia lay below the inguinal ligament. The incision was continued so that a McVay herniorrhaphy could be accomplished. However, it was not possible to reduce the hernia beneath the inguinal ligament and therefore the sac was dissected free below the ligament. Upon opening the sac approximately 15-20 cc of thick, greenish-yellow pus was encountered. A Gram stain of a smear revealed no organisms and cultures were negative. The neck of the femoral sac was transected and a Penrose drain was placed in the depths of the abscess cavity and brought out through a stab wound below the inguinal crease. A standard McVay herniorrhaphy was then performed. The subcutaneous space was also drained. Following the herniorrhaphy he did well except that he developed complete pyloric obstruction secondary to his duodenal ulcer. He was then admitted to University Hospital where a gastrojejunostomy was performed. At this time he is doing quite well.

This case is rather interesting for two reasons. The first, of course, being the occurrence of an abscess within a femoral hernia sac. Secondly, at no time were there any physical signs to indicate the presence of an abscess.

411 Community Building, Ponca City, Oklahoma

A method of treating peptic ulcer by stimulating the production of hormones: Thereby enhancing the usual anti acid therapy.

High Fat Treatment of Peptic Ulcer

A Preliminary Report

VIRGIL RAY FORESTER, M.D.

In 1944, Virgil Ray Forester, M.D., graduated from the University of Oklahoma School of Medicine where he is now Assistant Professor in Medicine. His private practice is limited to his specialty, Gastroenterology.

Doctor Forester is a member of the Oklahoma City Clinical Society and the Oklahoma Society of Internal Medicine.

THE TREATMENT of peptic ulcer is basically the management of acid pepsin activity. Individuals whose stomachs produce no free hydrochloric acid, do not develop peptic ulcer.

This concept of ulcer therapy was first promoted by Christopher R. Pemberton[1] sometime in the early 19th century. Sippy,[2] in 1912, revised the theory with what has been spoken of as a more scientific approach. The results which he obtained were superior to those previously experienced. However, his attempt to completely neutralize the hydrochloric acid of the stomach is now known to be an impossibility.

With more advanced knowledge in gastric physiology, ulcer therapy should be directed toward the gastrointestinal physiologic activities by either their alteration, stimulation, or inhibition.

For the most part, the stomach, small intestines, gallbladder, and pancreas are under the control of the nervous system and humoral agents derived from the mucosa of the gastrointestinal tract.

Acid neutralization, by giving anti-acid substances, forms a major portion of the treatment in peptic ulcer. At present, the preparations which are used, neutralize only the acid which is already formed within the stomach, totally ignoring the inhibition of further acid formation, the neutralization of the acid which has poured over into the duodenum, and the lessening of the gastric activity.

Since the earliest studies of Pavlov, it has been known that the ingestion of fat inhibits secretion of gastric juice, and lessens gastric motility. This is brought about by an intestinal hormone, enterogastrone, which has a specific gastric secretory depressant action. Enterogastrone is released when fat comes in contact with the duodenal mucosa. It enters the blood stream and acts specifically on the parietal cells, inhibiting their secretion of hydrochloric acid.

When fat enters the duodenum, it also causes a secretion of the hormone secretin. Secretin, like enterogastrone, is carried in the blood stream, but its specific action is on the pancreatic gland, causing it to secrete large amounts of bicarbonate into the duodenum. This highly alkaline substance in turn, neutralizes the acid content of the duodenum.

Cholecystokinin is released from the duodenal mucosa when fat comes in contact with it. This hormone then causes the gall bladder to contract expelling a large quantity of bile into the intestine. Bile being an alkaline substance aids in the further neutralization of hydrochloric acid.

Using these phyciologic observations, a preparation of calcium carbonate combined with olive oil and coconut oil* was used in the treatment of a series of one hundred patients with peptic ulcer, and clinical observations made. All cases were diagnosed by x-ray and treatment was directed toward ulcers of the stomach as well as those found in the duodenum. It was thought that a continuous period of therapy covering an eight-weeks period should be an adequate trial. At the end of four weeks, a progress x-ray film was made of the ulcer-bearing portion of the stomach and a final film was taken at the end of the eight-weeks period.

In conjunction with the calcium carbonate oil medication, an anticholinergic drug was given. No special regulation of the diet was made, other than the patient was encouraged to discontinue the use of coffee, coca cola, pepsi cola, alcohol, and those highly seasoned foods which are found in Mexican and Italian dishes.

Since the introduction of a fat or oil into the intestine in large quantities will bring about a depression of the gastric secretion for several hours, it is followed by a phase of accelerated secretions; this is often referred to as the "bi-phasic effect" of fat.[3] However, when the amount of fat administered is small, the inhibitory phase is manifested, but the rebound phenomenon is absent.[4] Therefore, the amount of fat incorporated in the mixture was small and the dose repeated frequently; one dram every hour while the patient was awake.

Relief of symptoms was immediate in all patients treated. This is considered to be an important factor in ulcer therapy. A continuation of an aggravating, painful situation produces an emotional lability which in turn interferes with satisfactory therapeutic results. The presence of the oil seems to clinically eliminate the anti-acid rebound for the relief of pain continued from dose to dose. Nocturnal pain presented no problems; for the most part, this symptom disappeared shortly after the onset of therapy. Constipation, which has been an outstanding factor in the use of calcium carbonate, was not experienced by any of the patients to any disturbing degree.

*Prepared by S&S Pharmaceutical Co., Oklahoma City, Okla.

The following is a typical case history of results as observed with this medical approach.

The patient, J.W.W., was first seen in April 1958 with the chief complaint "I have stomach trouble."

He gave a history of a gnawing pain in the epigastrium which had been present for the previous four months. The pain usually appearing between meals and relieved by drinking a glass of milk. He was experiencing nocturnal pain which appeared about 1:00 or 2:00 a.m., awakening him from his sleep. He had vomited frequently, especially after breakfast. There had been no hematemesis or melana. He was experiencing early satiety followed by bloating.

The patient had a marked emotional background; his wife describing him as being selfish, disturbed by crowds of people, had ideas of reference when in crowds.

The patient's past history was of a perforated ulcer two years previously.

Physical examination was entirely negative; the patient being a well developed, well nourished, white male who did not appear acutely or chronically ill.

Laboratory examination revealed a hemoglobin of 15.3 grams; hematocrit of 53%; white blood count 8,250; sedimentation rate 1 mm. in one-half hour, 3 mm. in one hour. The urinalysis was negative for albumin and sugar; he had a Ph. of 6; specific gravity of 1.002; microscopic negative; color clear, light amber.

X-ray films were made of the gallbladder and colon and these were found to be negative. An x-ray film of the stomach and duodenum showed no visible pathology in the stomach proper. The duodenum was deformed and contained a persistent barium fleck.

A sigmoidoscopic examination was done, the scope being passed twenty-three centimeters. The mucosa had a normal appearance and there was no evidence of upper intestinal bleeding.

The patient was placed on conservative therapy consisting of dietary instructions which primarily prescribed a well balanced,

nutritious dietary intake and advised the discontinuance of the use of coffee, coca cola, pepsi cola, and alcoholic drinks. The diet also recommended six small feedings per day and the avoidance of cold and hot foods. Highly seasoned foods were also prohibited. Medication consisted of Tincture of Belladonna, fifteen drops every four hours while awake. Calcium oil preparation, one teaspoon every hour while awake. Ultran, one capsule four times a day.

After onset of therapy, the patient improved both in reference to his gastric discomfort and emotional reactions. He began to sleep well, where before his sleep was frequently interrupted, both by pain and by emotional disturbances.

Four weeks after the onset of therapy, a progress film was made of the stomach and duodenum. The cap was found to be markedly deformed, with no evidence of ulceration. At the end of the total eight-weeks period, a final x-ray film was made; this film compared in every respect with the four weeks film.

The patient was seen again three months later. He had experienced epigastric pain for two days, but other than that, considered himself in good health.

The patient was again seen six months after his last x-ray examination, at which time the stomach was again checked. The duodenal cap was deformed, but there was no evidence of active ulceration. He had no complaints. He was last seen six months later. His gastric complaints had not returned and he was in good physical and emotional health. An x-ray film of the stomach failed to reveal any organic pathology, however, the cap was found to be deformed as on previous films.

Conclusion

Until further knowledge is obtained to reveal the etiological factor of peptic ulcer, either in the stomach or duodenum, treatment will of necessity continue to be symptomatic. Though it is impossible to completely neutralize all hydrochloric acid formed within the stomach, it is thought that the use of a combination of anti-acid and oil will more nearly accomplish this fete. Further, hormonal action to eliminate the productivity of hydrochloric acid by the parietal cells is definitely advantageous. It is also thought by reducing the gastric motility, that the anti-acid, calcium carbonate, will have a greater neutralizing effect by allowing it longer contact with the remaining acid. Also, by stimulating the production of physiologic neutralizing factors, bicarbonate from the pancreas and an increase flow of bile, greater neutralization of acid entering the duodenum will take place. Though, in this series, no specific attention was paid to the diet, other than those factors mentioned, it is thought that the diet should consist of high fat, high carbohydrate and low protein foods. The quantity of sugar in the diet is elevated because it too has a similar effect on the duodenal mucosa as fat in the stimulation of enterogastrone.

Summary

A method of treating peptic ulcer, using an anti-acid combined with oil has been presented. A discussion of the known physiologic activities of the stomach and duodenum as a result of hormonal stimulation has been made. With this therapeutic approach, there has been no reliance paid on the use of diet and anticholinergic medication. However, it is thought that a diet consisting of high fat, high carbohydrate and low protein intake should be encouraged.

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1. Pemberton, C. R.: A Practical Treatise On Various Diseases of the Abdominal Viscera. 4th Edition, London, Bulmer and Nicol, 1820.

2. Sippy, B. W.: Gastric And Duodenal Ulcers (Medical Cure By An Efficient Removal of Gastric Juice Corrosion). J.A.M.A., 64: 1625, 1915.

3. Shay, H., Gershon-Cohen, J., et al.: Role of Upper Small Intestine In Control Of Gastric Acid Control And an Explanation For Pathologic Gastric Physiology In Uncomplicated Duodenal Ulcer. Am. J. Digest, Dis., 9: 124, 1942.

4. Komarov, O., et al.: Effect of Olive Oil And Cod Liver Oil On Gastric Secretion in Dog. Canad. M.A.J., 43: 129, 1940.

1111 North Lee, Oklahoma City, Oklahoma

" . . . Life is change and change is life . . . what is everywhere looked for is everywhere discovered . . . "

Geoffrey West

Hypothermic Total Body Cardiopulmonary Bypass Experimental and Clinical Studies*

NAZIH ZUHDI, M.D.
BILL McCOLLOUGH, M.D.**
JOHN CAREY, M.D.
ALLEN GREER, M.D.

A. Hypothermic Perfusion with Oxygenators:

The combination of internal hypothermia and total body cardiopulmonary bypass has been shown to be feasible by Gollan, Sealey and Brown, and others. Our double helical perfusion system has been discussed else-

*Abstract of paper read at the meeting of the Oklahoma County Heart Association, on January 25, 1960. From the Department of Surgery, Mercy Hospital, Oklahoma City, Oklahoma. Supported by Mercy Hospital Heart and Research Institute and Cardiovascular Institute, Oklahoma City, Oklahoma.
**Fellow in cardiovascular research, Mercy Hospital, Oklahoma City, Oklahoma.

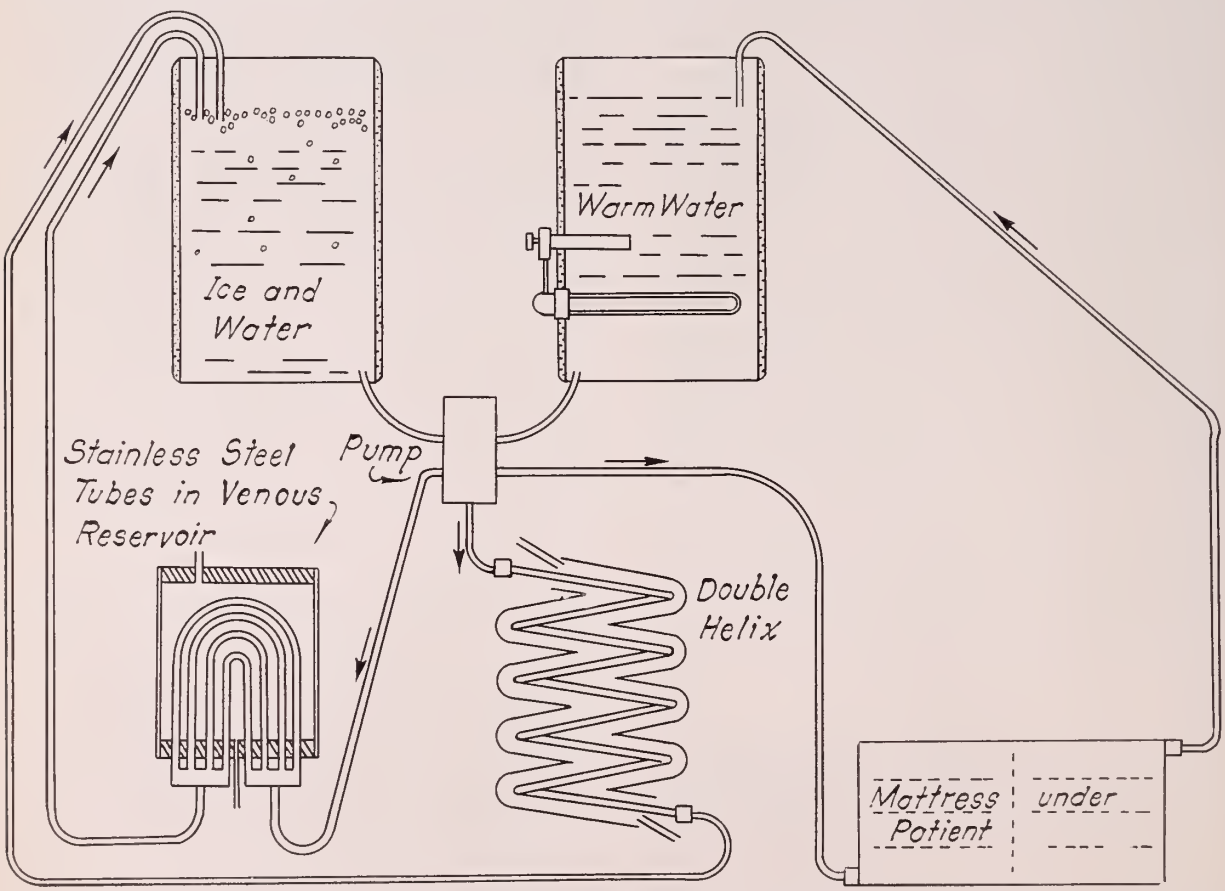
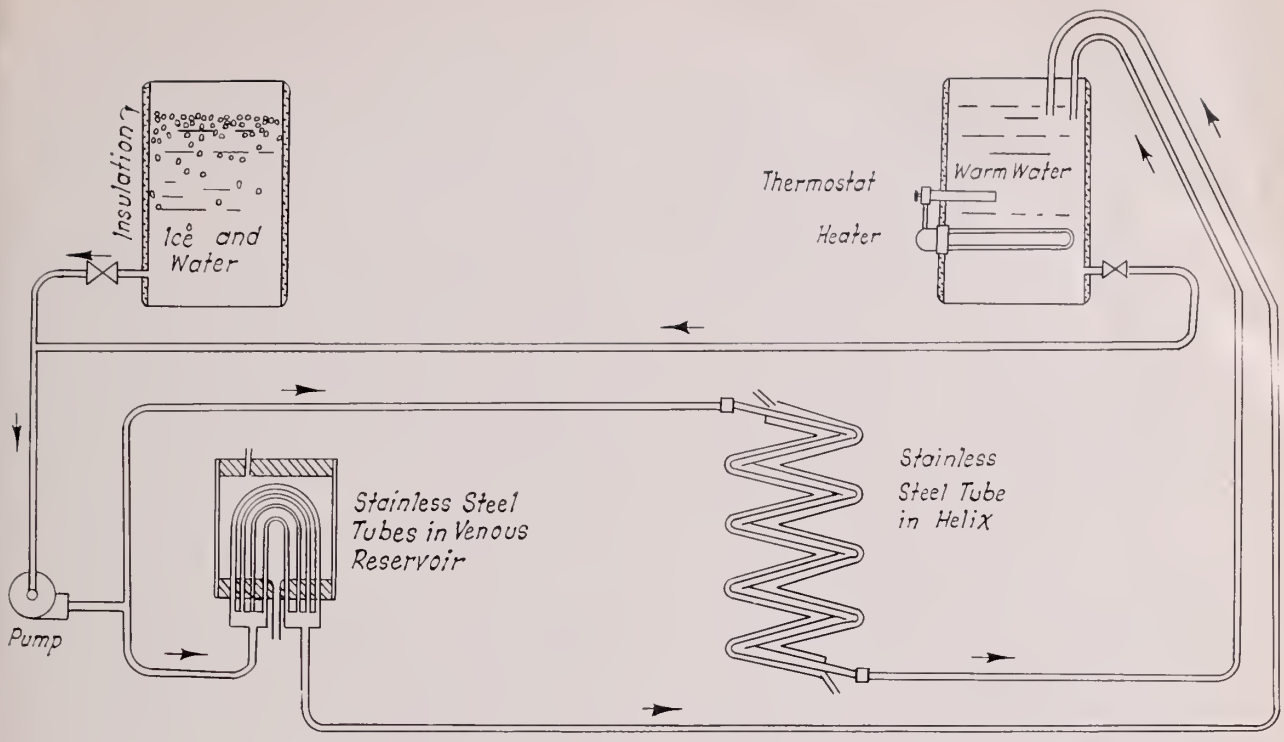


Diagram 1 shows the system as it was originally designed and which was used clinically for the first time on May 29, 1959. The mattress and inner stainless steel helix were used for cooling and warming, and the stainless steel "hairpins" for warming in the first eleven patients in our series. The basic oxygenator is the DeWall type.



External hypothermia, i.e. the mattress, was eliminated as shown in Diagram 2, and this system was used in ten cases.

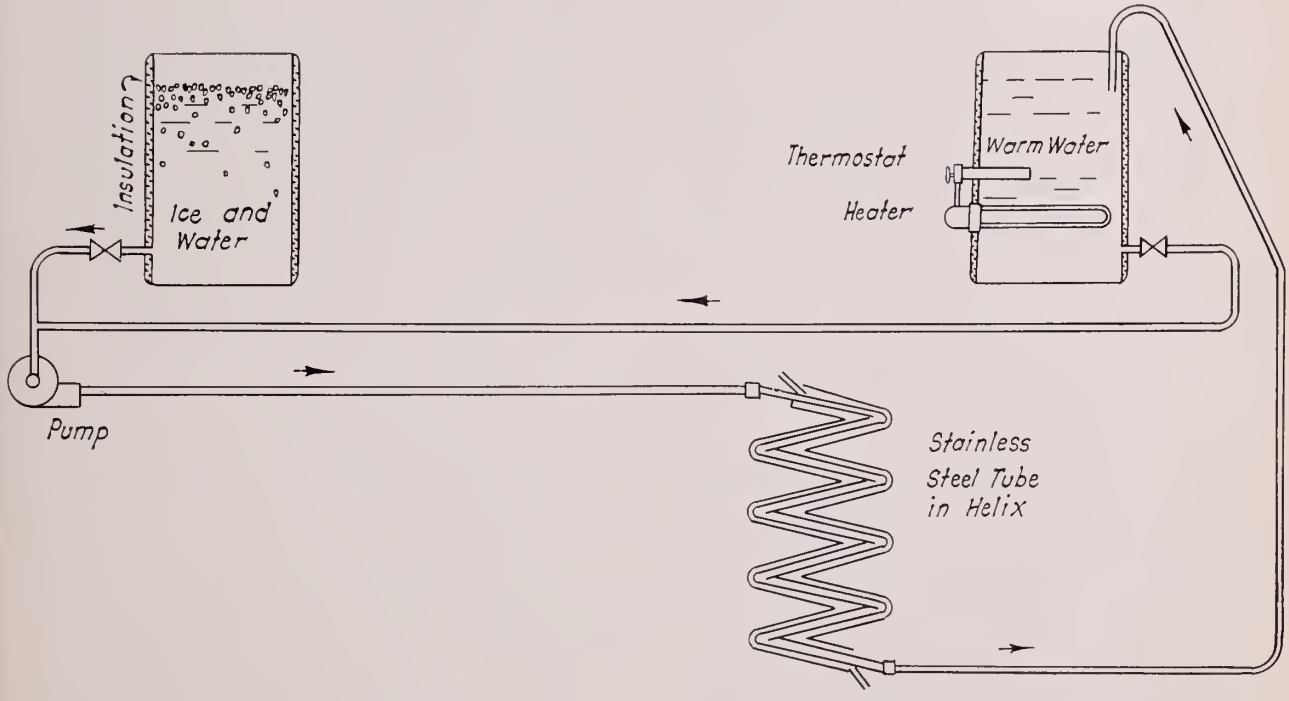


Diagram 3 demonstrates the system used in the last 12 patients. The double helical system is efficient and sufficient. With the elimination of the venous reservoir, venous and cardiotomy suction pumps, the system is rendered very simple.

where and we will just point out the evolution of the system since is inception (Diagrams 1-3).

Our total clinical experience with hypothermic perfusion will be related. In 33 patients there were two deaths (both in tetralogy of Fallot) and one late death in a case of atrial septal defect, four months after surgery. Autopsy revealed intact cardiac repair. We have 25 consecutive survivals.

B. Hypothermic Perfusion Without Oxygenerators:

Finally, the production of profound hypothermia in dogs using the double helical system without the oxygenator should be mentioned. This type of hypothermia can be done by arteriovenous, venovenous or venoarterial shunts with or without a pump. The Britishers have many publications on these systems. Our largest series is with arterioarterial cooling. Eleven dogs have been cooled by this system using flows of 20 cc. per Kg. of body weight without opening the chest. Somewhere between 12° C. and 16° C. the perfusion is interrupted for 30 minutes and then warming started. Ten dogs recovered and lived. One died on the second postoperative day. None have fibrillated.

Addendum

The double helical system has been primed with 5% dextrose in water which is *actually* used for perfusion, in 24 patients. The red blood cell mass is decreased during the period in which the patient's requirements are less due to his lower temperature. At the end of the perfusion most of the blood is returned to the patient and the red blood cell mass restored. This heart-lung machine clinically proves the experiments of Gollan. Banked ACD blood is used, up to eight days old. The double helical system, in all its modifications, has so far been used in 70 patients. (June 23, 1960)

The Foregger pulspirator is originally primed with saline which is then displaced in a retrograde fashion by the blood of the patient who is being transfused to compensate for that loss, a different principle from the one herein described.

430 N.W. 12th, Oklahoma City, Oklahoma

Annotated Bibliography on Retrolental Fibroplasia

EDITOR'S NOTE: Retrolental Fibroplasia is a preventable. If it occurs and blindness results, the physician may be legally culpable as well as emotionally seriously traumatized. Understanding the evolution of knowledge concerning oxygen use and and blindness due to retrolental fibroplasia is essential.

1. Campbell, K.: Intensive oxygen therapy as a possible cause of retrolental fibroplasia: a clinical approach, Med. J. Australia **2:** 48 (July) 1951.

2. Crosse, V. M., and Evans, P. J.: Prevention of retrolental fibroplasia, A.M.A. Arch. Ophth. **48:** 83 (July) 1952.

> "In our view, supported by the history of the disease in England since 1946, by our experience, and by comparison with the experiences in other centers in the country, it is right to draw attention to the dangers of the use of too much oxygen and to its administration for too long a period . . ."

3. Patz, A., and others: Studies on the effect of high oxygen administration in retrolental fibroplasia: I. Nursery observations, Am. J. Ophth. **35:** 1248 (Sept.) 1952.

> Study in Gallinger Municipal Hospital, Washington, D.C., was aided by grants from National Institute of Neurological Diseases and Blindness and District of Columbia Society for the Prevention of Blindness. The results of the first of a three-year controlled oxygen nursery study are cited. Authors conclude that there are now sufficient data to question the advisability of the "routine" use of prolonged high oxygen concentrations in the nursery.

4. Editorial: Retrolental fibroplasia and oxygen, J. Ped. **44:** 122, 1954.

> " . . . there is a growing feeling that oxygen should not be given routinely to the premature infant, but reserved for individualized cases of asphyxia and further, it should be used in as low a concentration as possible and for as short a time as possible."

5. Lanman, J. T., and others: Retrolental fibroplasia and oxygen therapy, J.A.M.A. **153:** 223 (May 15) 1954.

> Report of research at Bellevue Hospital, New York, concluding that the authors believed the disease to be directly related to excessive oxygen and felt that it could be controlled by severely restricting oxygen administration to premature infants.

*Commonly abbreviated as RLF.

9. Rothmund, H. I. M., and others: A field study of retrolental fibroplasia in Maryland, Pediatrics **14**: 455 (Nov.) 1954.

The authors stated that a recent series of papers by Patz, Ashton, Lanman and others "have indicated that oxygen is an etiologic factor."

10. Abstract of article from Lancet, J.A.M.A. **156**: 1102 (Nov. 13) 1954.

Reported striking correlation of oxygen administration to premature babies and the occurrence of retrolental fibroplasia.

11. Editorial, Prematurity, oxygen, and retrolental fibroplasia, J.A.M.A. **157**: 449 (Jan. 29) 1955.

"In the present state of knowledge, there is certainly no reason to deny small premature infants the benefits of incubator care or of additional oxygen in the amount and duration indicated by relief of cyanosis. And, since retrolental fibroplasia is essentially limited to infants of less than 2,267.9 grm. (5 lb.), there need be no fear of disturbing the eyes of term infants by the oxygen therapy so frequently required for their pulmonary and circulatory disturbances. On the other hand, the evidence is now strong that the exposure of infants to oxygen for even several days is associated with increased incidence of retrolental fibroplasia. Thus, the physician caring for a premature infant should steer a course between preventable anoxia endangering survival on the one hand and the ophthalmologic hazards of unnecessary use of oxygen on the other."

12. Smith, Clement A.: Oxygen and retrolental fibroplasia, Mod. Hosp. **84**: 49 (Feb.) 1955.

The author discussed various studies indicating the relationship between oxygen and retrolental fibroplasia, and pointed out that the statistics on the 18-hospitals study reported by Kinsey at a meeting of the American Academy of Ophthalmology and Otolaryngology in September 1954, were highly significant in showing the relationship between prolonged high-oxygen administration and the disease. However, he did not make a strong recommendation as to methods of prevention.

13. Editorial: The overuse of oxygen and retrolental fibroplasia, J. Ped. **46**: 252 (Feb.) 1955.

"If currently available information is disregarded and an infant becomes blind, the burden that lies on the physician and the hospital is unpleasant to contemplate. The conclusion is obvious that discriminate and limited use of oxygen in premature babies is now mandatory."

14. Engle, Mary A., and Levine, S. Z.: Response of small premature infants to restriction of supplementary oxygen, A.M.A. J. Dis. Child. **89**: 316 (Mar.) 1955.

The authors, reporting studies at New York Hospital—Cornell Medical Center, concluded: "There were no detectable late ill effects from the early termination of oxygen administration. It would seem that the administration of oxygen to premature infants of low birth weight as a routine procedure is not necessary."

15. Lanman, J. T.: The control of oxygen therapy for the prevention of retrolental fibroplasia, J. Ped. **46**: 365 (Mar.) 1955.

"In summary, the proper control of oxygen use means first its total elimination except for times of clinically demonstrable need. It should then be given for as brief a time as possible at concentrations below 40 per cent." The author then went on to say how to control the concentration.

16. Kinsey, V. E.: Letter to the editor, Pediatrics **18**: 511 (Sept.) 1956.

"In view of the positive evidence indicating that even relatively short exposures to oxygen are associated with RLF, even though the concentration is kept below 40%, and the paucity of evidence that there is any critical concentration below which RLF is markedly reduced in incidence, I believe that merely restricting the concentration of oxygen, without stringently reducing the duration in oxygen, may result in unnecessary cases of RLF. Certainly, the emphasis should be placed on restricting the duration in oxygen to an absolute minimum consistent with the clinical indications of anoxia irrespective of the concentration of oxygen administered."

17. Kinsey, V. Everett, and others: Retrolental fibroplasia—Cooperative study of retrolental fibroplasia and the use of oxygen, A.M.A. Arch. Ophthal. **56**: 481 (Oct.) 1956.

The author's recommendations: "The length of time a premature infant, particularly an infant of multiple birth, is kept in an environment containing oxygen in concentrations in excess of that of air should be kept to an absolute minimum, consistent with the clinical indications of anoxia. When oxygen therapy is clearly required, it should be prescribed on an hourly basis and the concentration should be as low as possible."

18. Patz, Arnall: The role of oxygen in retrolental fibroplasia—E. Mead Johnson award address, Pediatrics **19**: 504 (Mar.) 1957.

"These clinical and experimental data justify recommendations for a rigid supervision of oxygen administration to the premature infant to avoid any unnecessary overuse of this potentially toxic agent."

The above bibliography is by no means a complete listing of the articles that have been published on this subject. It does indicate that numerous articles were in the literature pertaining to the role of oxygen in the etiology of RLF.

MEDICAL  CENTER

Message from the Dean

We are embarking upon a new decade—and perhaps a new era—in medical education. Discovery follows discovery at an unprecedented pace, adding to an already staggering conglomerate of material from which curricula are shaped. Attending this scientific progress, and, indeed, resulting in part from medical advances, is the accelerated rate of population increase with heightened demands for health care.

Society can reasonably expect the schools of medicine to provide the opportunity for a sound medical education.

Today the established requirements for admission to medical school, increasing competition for students by other professions and the time and cost required for medical education are factors making it more difficult for medical schools to attract enough able students to keep classes filled, and to educate adequate numbers of physicians.

The other side of the coin is that the medical school has a right to expect society to assist in the wholesome recruitment of capable young people to enter the study of medicine and also to expect public support of the facilities necessary to train additional physicians.

But what of the school's responsibility to offer an undergraduate medical education that will provide a solid foundation for practice—and to accomplish this without further lengthening of the period of training?

The curriculum of the University of Oklahoma School of Medicine is continually under scrutiny. Many new approaches in both basic and clinical courses have been structured, tried and evaluated. Some have been discarded, others kept. A notable example of a proved departure from previous classical approaches was the institution some eleven years ago of the preceptorship in the fourth year.

There are other examples. Lectures during the last two years have been reduced to a minimum. The student is off a seat and on his feet, out of the lecture hall and on the ward where he truly learns by doing. The fourth year clinics, with the general medicine clinic forming the keystone, are arranged to give continuity to his course of study.

In the '60's we must give increasing attention to the course content in our instructional program. Each day brings a wealth of new material.

Yet the curriculum must not become over-crowded or excessively long. It must grow by design rather than by accretion. While it would be easier to lengthen the study period, by so doing one would take additional time away from a physician's life of active practice and add to the cost of the student's education.

Medical schools must therefore consider many searching and disturbing questions.

What is the length of time before a student qualifies for practice that can be justified educationally and economically? . . . Are there optimal cooperation, correlation and integration among departments and divisions of the school to provide a basic core of knowledge for conceptual learning? . . . Are sufficient efforts being made to train and attract qualified teachers in all of the disciplines? These are our problems in the years ahead.

Mark R Everett

The treatment of diabetes mellitus with orally effective agents continues to show promise as a definitive measure.

Extended Treatment of Diabetes Mellitus With Chlorpropamide (Diabinese®)*

R. W. PAYNE, M.D.

DEAN H. DIMENT, M.D.

JOHN A. BLASCHKE, M.D.

In 1943 Richard W. Payne M.D. graduated from the University of Oklahoma School of Medicine where he is now Associate Professor of Pharmacology and Instructor in Medicine.

Doctor Payne is a member of the American Society For Pharmacology and Experimental Therapeutics, the Society for Experimental Biology and Medicine the Endocrine Society, the American Rheumatism Association and the American Association for the Advancement of Science.

Dean H. Diment, M.D., graduated from the University of Oklahoma School of Medicine in 1960.

John A. Blaschke, M.D., graduated from the University of Oklahoma School of Medicine in 1950 where he is now an Instructor in Pharmacology. Doctor Blaschke's practice is limited to his specialty, Internal Medicine.

Doctor Blaschke is a member of the American Rheumatism Association and the Oklahoma Arthritis Study Group.

THE ABILITY of certain sulfonamides to produce hypoglycemia was observed in 1942, closely following the introduction of these agents as antibacterials.[1,2,3] However, early compounds (chiefly of the sulfanilylthiadiazole class) exhibiting this action were considered too toxic to warrant extensive application to the treatment of diabetes mellitus.

In 1955 Franke and Fuchs[4] noted a tendency toward hypoglycemia in patients under treatment with a long acting arylsulfonylurea compound and energetically set about to explore further the practical application of this effect in the treatment of diabetes mellitus. Initial success with the parent compound, carbutamide, immediately captured wide-spread medical attention and generated great activity in the development of analogs with similar action. Despite extensive clinical trial in this country carbutamide was withheld from the market due to what was considered unacceptable hepatotoxic properties, but limited use of the drug has continued in Europe.[5] Tolbutamide, the paramethyl derivative of carbutamide, though somewhat less active as a hypoglycemic agent, proved consideraby less toxic[6,7] and was marketed in 1958 for the oral treatment of diabetes mellitus.

From a vast number of related compounds the para-chloro-3-propyl derivative of carbutamide, chlorpropamide, was selected for clinical trial early in 1958 as a hypoglycemic agent.[8] The latter agent was found more potent and more prolonged in action than tolbutamide.[9]

The present report is concerned with experience gained from the use of chlorpropamide in the treatment of diabetes mellitus for periods in excess of 18 months.

Methods

Seventeen patients with diabetes mellitus of the adult type were studied at the Oklahoma County Farm Hospital (in-patients)

*This paper is from the Departments of Pharmacology and Medicine, University of Oklahoma School of Medicine. Diabinese®, furnished by Pfizer Laboratories, Brooklyn, New York.

and the Bone and Joint Hospital (out-patients) of Oklahoma City. Prior to treatment and at approximately monthly intervals, the following laboratory data were obtained on each patient: Hemoglobin, red blood cell count, white blood cell count with differential, urinalysis, fasting blood sugar, cephalin flocculation test, serum alkaline phosphatase, total and direct serum bilirubin and blood urea nitrogen. In some cases the blood sugar two hours after breakfast was determined. Home urine testing for glucose and a dietary protocol were required of each patient. Customary diabetic instruction including technique of insulin administration was provided in each case.

Early in the study, initial dosage of chlorpropamide was .5 gm. twice daily; later it was reduced to 0.5 gm. in a single dose to be taken immediately before breakfast. If the dose was later divided, the second portion was taken at 6:00 p.m. Dosage of chlorpropamide was reduced upon evidence of toxicity, hypoglycemia, or after prolonged periods of good control in order to determine the minimal effective dose.

Results

The diabetic history and response to chlorpropamide is summarized in Table 1.

Eleven of the 17 patients (65%) have maintained satisfactory control of their diabetes on chlorpropamide for periods of at least 12 months. The remainder of the patients were withdrawn from chlorpropamide therapy for reasons apparent in the following case histories.

R.K. developed jaundice after taking 0.5 gm. chlorpropamide twice daily for one month. This was preceded by a two week period of vague anorexia and malaise, not accompanied by laboratory evidence of liver

Table 1.

					INSULIN		TOLBUTAMIDE			CHLORPROPAMIDE					
Pt.	Age	Sex	Dur. of Diabetes*	Body Wt.* (Pounds)	Daily Dose	Duration	Daily Dose	Duration	Diabetic Control	Daily Dose	Duration	Diabetic Control	Toxicity	Change in body Wt. (Pounds)	Comments
1. G.B.	51	M	4 yrs.	190	N.P.H.10 u	3 yrs.	2 gm.	11 mo.	2° failure	1 gm.	1 mo.	Satisfactory	Diarrhea		
										.5 gm.	15 mo.	Satisfactory	None	+4	
2. G.F.	60	F	2 mo.	198						.5 gm.	12 mo.	Satisfactory	None	+1	Diabetic neuropathy improved
3. M.H.	74	F	9 mo.	120						.5 gm.	1 mo.	Satisfactory	Hypoglycemia		Diabetic
										.25 gm.	15 mo.	Satisfactory		0	neuropathy improved
4. L.D.	44	M	6 yrs.	180	N.P.H.30 u	6 yrs.	2 gm.	2 mo.	2° failure	.5 gm.	19 mo.	Satisfactory		0	
5. N.K.	50	F	7 yrs.	129						.5 gm.**	16 mo.	Satisfactory	None	+11	Diabetic neuropathy improved
6. R.K.	56	M	17 yrs.		N.P.H 65 u	16 yrs.	1.5 gm.	6 mo.	2° failure	1.0 gm.	1 mo.	Satisfactory	Hepatitis Oligurea	—8	Recovery from hepatitis 2 wks.
7. V.L.	40	M	17 yrs.	280	N.P.H 160	8 yrs.	1.0 gm.	7 mo.	Satisfactory	1.0 gm.	4 mo.				
										0.5 gm.	12 mo.	Satisfactory	None	—37	
8. J.L.	61	F	4 yrs.	132			2.0 gm.		Satisfactory	.5 gm.	1 mo.		Upper G.I. discomfort	+6	
							2.0 gm.		Satisfactory	.4 gm.	3 mo.	Satisfactory			Refused further chlorpropamide
9. E.Mc	54	F	5 yrs.	150	N.P.H.24 u	4 yrs.				.5 gm.	4 mo.	Satisfactory	G.I. Complaints		Better control than insulin
										.25 gm.		***			
										*N P H.24 u.	13 mo.	Satisfactory	None	+2	
10. J.M.	70	M	2 mo.	156						.5 gm.	2 mo.	Satisfactory	None		24 u alone
										.25 gm.	11 mo.	Satisfactory	None	+8	
11. J.M.	72	M	12 yrs.	162	N.P.H.32 u	10 yrs.	2.0 gm.	2 yrs.	2° failure	.5 gm.	2 mo.	Satisfactory	Mild transitory G.I. discomfort	—2	Side effect cleared while still on treatment. Lost to follow up
12. E.D.	60	F	7 yrs.	149	N.P.H.20 u	7 yrs.				1.0 gm.	1 mo.	Satisfactory	Hypoglycemia		
										.5 gm.	1½ mo.	Satisfactory	G.I. disturbance		
										.25 gm.	14 mo.	Satisfactory	None	+10	
13. J.S.	80	M	7 yrs.	162	N.P.H.44 u	7 yrs.				1.0 gm.	2 mo.	Satisfactory	Hypoglycemia	+9	
										.5 gm.	10 mo.	Satisfactory	None		
14. J.S.	52	M	1 yr	215			1.0 gm.	10 mo.	2° failure	.5 gm.	9 mo.	Satisfactory	Hypoglycemia	—12	
										.25 gm.	9 mo.	Satisfactory	None		
15. E.S.	26	F	2 mo.	150			1.0 gm.	3 mo.	Satisfactory	.5 gm.	3 mo.	Satisfactory	G.I. distress	—4	Requested return to tolbutamide
16. E.Y.	71	F	1 yr.	180			1.0 gm.	13 mo.	2° failure	1 gm.	1 mo.	Moderate	None	+5	Lost to follow up
										.5 gm.	3 mo.	Moderate	None		
17. E.L.	60	M	9 yrs.		N.P.H.40 u	9 yrs.				.5 gm.	3 mo.	Satisfactory	None	+2	

* At beginning of chlorpropamide therapy
**Divided doses
*** Response to chlorpropamide alone in tolerable doses poor

dysfunction. At the onset of jaundice an increase in serum thymol turbidity, serum bilirubin and BUN was found. Severe nausea, malaise, and oligurea disappeared over a period of two weeks after the patient was returned to NPH insulin, 60 units daily. No rise in serum alkaline phosphatase was observed in this case. The patient has remained free of complications or sequelae of his hepatitis to the present time (16 months).

J.L. and E.S. while satisfactorily controlled on chlorpropamide for a period of three months, requested return to tolbutamide because of rather persistent epigastric discomfort. No evidence of liver dysfunction appeared in these patients.

E.L. was a patient with severe congestive heart failure, whose diabetes was controlled with 0.5 gm. of chlorpropamide daily with no evidence of hepatic or renal impairment during such treatment. Terminally the patient was returned to Regular insulin given on a sliding scale to adjust to his capricious dietary intake.

J.M. was satisfactorily controlled on 0.5 gm. chlorpropamide daily but was lost to follow-up after one month.

E.Y. an unreliable patient with senile dementia, was moderately well controlled on chlorpropamide but was transferred to another medical facility after nine months.

Two other patients complained of epigastric discomfort which was relieved by reducing the dose of chlorpropamide. One of them (E.Mc) required 24 units of NPH insulin to supplement the smaller dose of chlorpropamide; the other (G.B.) remained well controlled on the reduced dose. There were instances of elevation of the serum alkaline phosphatase concentration in five patients without other evidence of liver dysfunction but subsequent tests were within normal limits even though medication was not interrupted.

Rather severe hypoglycemia appeared in two patients receiving 0.5 gm. of chlorpropamide daily for periods of one and nine months.

Side effects encountered during our initial experience with chlorpropamide were considerably reduced after limiting the daily dose to a maximum of 0.5 gm. as has been the experience of others.[10] Undoubtedly more patients would have remained on chlorpropamide therapy had initial dosage schedules been more conservative.

The patients were generally well controlled on a single daily dose of chlorpropamide taken in the morning, but one patient (N.K.) appeared to be better controlled by a divided dose.

Mild diabetic neuropathy was present in four patients at the beginning of chlorpropamide treatment. Complete remission of these symptoms occurred in the first three months of chlorpropamide treatment.

Tolbutamide had previously been used in the treatment of nine patients of the present series. Of the six patients who had developed secondary failure to tolbutamide, two responded to chlorpropamide but developed side effects necessitating withdrawal while three have remained satisfactorily controlled with chlorpropamide. The remaining patient has been lost to follow-up. It is noteworthy that tolbutamide had not previously caused toxic reactions in any of these patients.

No secondary failures to chlorpropamide were encountered in the present series. On the contrary, increased sensitivity to the hypoglycemic effects of the drug occasionally developed after prolonged treatment.

Overall control of the sulfonylurea-sensitive diabetic state by chlorpropamide was considered in all cases superior to that which had been possible with insulin.

Discussion

The present limited but protracted study of chlorpropamide in the treatment of diabetes mellitus is in general agreement with other reports.[11-14] The majority of these adult stable diabetics appeared to be admirably controlled by the drug given orally in a single daily dose of 250-500 mg. This dosage should probably not be exceeded, particularly in older patients who are more sensitive to

the hypoglycemic action of the drug. Because of this sensitivity initiation of therapy in geriatric age patients with doses as small as 100 mg. daily may be indicated.

Eleven of the 17 patients started on chlorpropamide were successfully controlled and could be closely followed. After optimal dosage of chlorpropamide was determined, these patients maintained excellent diabetic control. No secondary failure to chlorpropamide occurred, in sharp contrast to tolbutamide.[15] It is of interest that the diabetic neuropathy present in four of our patients resolved itself after satisfactory control of the diabetes with chlorpropamide. This is in contrast to the reported exacerbation of diabetic neuropathy in patients taking tolbutamide.[16]

Intolerance to chlorpropamide prompted discontinuance of the drug in four of the 17 patients. Fortunately, undesirable side effects subsided rapidly and without residual complications when the drug was discontinued. There is evidence that gastrointestinal and hepatic side effects are related to the size of the dose of chlorpropamide. It appears possible that severe gastrointestinal symptoms may herald the development of hepatic involvement.

The eventual place of chlorpropamide and other hypoglycemic sulfonylureas in the treatment of diabetes mellitus can be determined only after more prolonged study. In the meantime, there is encouraging evidence that these agents can control the majority of mature onset diabetics as well as, or even better, than insulin. It will be of interest to see if the apparent good control of diabetes frequently afforded by these agents will be reflected in the reduction of degenerative complications of the disease. The immediate advantages of such treatment to both patient and physician are obvious.

In our experience chlorpropamide, by virtue of its greater potency, more consistent and more persistent action and the lack of secondary failure to its hypoglycemic effect, is the most suitable of the presently available sulfonylureas for the long term treatment of diabetes.

Summary

Seventeen diabetic patients treated with chlorpropamide are presented. Eleven of these patients (65%) remain satisfactorily controlled on the drug in daily doses of 250-500 mg. after treatment periods of at least one year. Six of these patients were classified as secondary failures to tolbutamide therapy. No secondary failure of response to chlorpropamide has occurred in the present series. Delay in the onset of hypoglycemia occurred in two patients, requiring reduction in dosage of chlorpropamide. Symptoms of diabetic neuropathy were present in four of the cases at the beginning of chlorpropamide therapy and disappeared early during treatment with this agent. Side effects to chlorpropamide, generally manifested as gastrointestinal symptoms, developed in five patients one of whom developed hepatitis. The side effects observed were believed to be due to excessive dosage of the drug. Transient elevation of serum alkaline phosphatase was found in five patients of the present series.

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ABSTRACTS

Effect of Different Intrinsic Factor Preparations on Co-60 Vitamin B-12 Uptake in Rat Liver Slices

PHILIP C. JOHNSON* and THEDA B. DRISCOLL**

Proc. Soc. Exper. Biol. and Med., 98: 731, 1958

Miller and Hunter have shown that when radioactive Vitamin B-12 is incubated with slices of rat liver, some of the Vitamin B-12 will be absorbed on to the liver slice. When hog intrinsic factor is added to the media the portion of Vitamin B-12 absorbed to the liver slice increases. It is still not known whether or not this phenomenon is a result of intrinsic factor activity. In order to test whether this is so, gastric juice from hog, dog, rat and human along with a commercial hog intrinsic factor concentrate were incubated with rat liver slices. It was found that only the hog and dog gastric juice produced an enhancement of the Vitamin B-12 uptake. Since all of these gastric juices contain intrinsic factor activity, it can be presumed that intrinsic factor itself did not participate in this uptake. In addition these gastric juices were tested for their ability to correct the absorptive defect in pernicious anemia and for their ability to make Vitamin B-12 nondialyzable. No correlation was found between their intrinsic factor activity in the human and their binding ability or to their effect on the rat liver slice.

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The Hematologic Adaption of Patients with Hypoxia Due to Pulmonary Emphysema

JAMES F. HAMMARSTEN,* W. H. WHITCOMB,** PHILIP C. JOHNSON,*** and J. R. LOWELL****

Am. Rev. Tuberc., 78: 391, 1958

Sixteen patients with pulmonary emphysema and arterial oxygen saturation below 92 per cent were studied. None of these patients developed the expected hemoglobin concentration for this degree of hypoxia. There was no significant difference between these patients and 8 normal control subjects in regard to blood volume, erythrocyte volume, reticulocyte count, hemoglobin, or iron turnover. The mean corpuscular volume was increased and the mean corpuscular hemoglobin concentration was decreased. It is notable that these findings are at variance with those described for the anemia of infection, although the evidence does support the concept of bone-marrow arrest. A defect in the humoral mechanism mediating the hypoxic stimulus may exist.

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Blood Flow Determined by the Use of Radioiodinated Serum Albumin and an Externally Placed Scintillator Detector

GUNNAR SEVELIUS* and P. C. JOHNSON, M.D.,** Oklahoma City, Oklahoma

Southern Med J., 52-9: 1058-1061, 1959

A radioisotope method has been presented which allows one to determine cardiac output and peripheral organ blood flow.

The technical design, graphical analysis and mathematical calculations have been described. Normal and abnormal values for coronary and kidney blood flow have been presented. This method is applicable to routine clinical testing.

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Glycosuria as a Cause of Falsely High Hydroxycorticoid Values

PHILIP C. JOHNSON,* B. L. WULFF,** B. J. ALBRIGHT,*** and KELLY M. WEST****

Diabetes, 7: 490-492, 1958

When the 17 hydroxycorticoids are measured in the urine by the method of Silber and Porter falsely high values are produced by the presence of sugar. The value for the 17 hydroxycorticoid steroids will appear to double with 0.5% sugar and when 2% sugar is present this value will quadruple. The addition of sodium bisulfide to the urine prior to extraction with chloroform will prevent the interference caused by glycosuria. Unless this is kept in mind, diabetic patients may be falsely diagnosed as having Cushing's Disease.

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Destruction of the Hypophysis With Radioactive Colloidal Chromic Phosphate In Cancer of the Prostate

PHILIP C. JOHNSON,* KELLY M. WEST,** and B. J. RUTLEDGE***

J. Neurosurgery, 15: 519-527, 1958

Six patients with far-advanced carcinoma of the prostate gland were treated by direct injection of radioactive P-32 as colloidal chromic phosphate into the hypophysis. Five of these patients had had orchiectomy previously. The three patients who survived the

surgical procedure noted relief of bone pain. One of these three exhibited objective evidence of remission of tumor growth. Panhypopituitarism occurred in two of these three patients. In one patient this persisted until his death 10 weeks following surgery. In the other case hypopituitarism and diabetes insipidus produced by the procedure disappeared six months after surgery. Evidence was obtained that the colloidal chromic phosphate disappears rapidly from the hypophysis after injection which, in our opinion, represents a distinct disadvantage. While this procedure resulted in benefit to some of the patients in whom it was tried the results did not appear to be good enough to warrant further study.

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The Erythropoietic Factor in Hypoxic Patients with Emphysema Without Secondary Polycythemia

W. H. WHITCOMB,* R. M. BIRD,** P. C. JOHNSON,*** J. F. HAMMARSTEN**** and M. MOORE*****

A. M. A. Arch. Int. Med., 103: 871-875, 1959

Patients with hypoxia due to pulmonary disease often fail to develop the polycythemia which normally occurs with similar degrees of hypoxia. The cause of this failure to respond to this degree of oxygen desaturation is unknown. Using a rat assay for erythropoietic factor, it was found that plasma from patients who were hypoxic as a result of pulmonary emphysema and who did not develop secondary polycythemia, contained quantities of erythropoietic factor greater than that seen in normal subjects. It would thus appear that production failure of erythropoietic factor is not the cause for failure of these individuals to respond to hypoxia.

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Metabolic Fate of Chlorpropamide in Man

PHILIP C. JOHNSON,* ALLEN R. HENNES,** THEDA B. DRISCOLL,*** and KELLY M. WEST****

Ann. New York Acad. Sc., 74: 459, 1959

Chlorpropamide (Diabinese) labeled with sulphur^{35} was used to determine the metabolic fate of this drug. It was found that chlorpropamide disappeared from the serum with initial half time of approximately 4 hours for tolbutamide (Orinase). Chlorpropamide is excreted almost entirely by the kidney without alteration as is found with tolbutamide. Only very slight fecal excretion was demonstrated. Chlorpropamide was made partially nondialyzable by serum proteins resulting in higher serum concentrations. Because this drug is not metabolized into an inactive product, and because its half time in the serum within the body is more prolonged than is tolbutamide, this drug may be given in smaller doses and less frequently than tolbutamide, thus giving chlorpropamide a clinical advantage.

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Calcium-45 Binding by Human Prealbumin

P. C. JOHNSON,* W. O. SMITH,** and B. L. WULFF***

J. Appl. Phy., 14: 859-860, 1959

Calcium-45 binding by human albumin and prealbumin has been studied. Protein separation was performed by continuous paper electrophoresis. Calcium-45 45 was added to the fractions and the mixture incubated at 37° centigrade for 24 hours. Unbound calcium-45 was removed by dialysis against tap water for 16 hours, the pH of the fractions remained between 8.6-9.1 at all times. Aliquots of the fractions were then counted with a micromil gas flow counter. The greatest specific activity was found in several tubes preceding the albumin, i.e. with faster electrophoretic mobility than classical albumin. The calcium-binding ability of this fraction, which has been previously called "prealbumin," exceeded that of classical albumin by sixfold.

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Myocardial Blood Flow Determined by Surface Counting and Ratio Formula

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J. Lab. and Clin. Med., 54-5: 669-679, 1959

A new method for determination of peripheral organ blood flow by a surface counting technique has been developed using radioiodinated serum albumin. By monitoring on the chest wall the time activity curve produced during the first passage of radioiodinated albumin through the heart and coronary vessels, it is possible to determine cardiac output and at the same time determine what portion cardiac output passes through the coronary circulation. This method is found to compare favorably with a more classical method for measuring coronary blood flow. This method may have clinical use in the diagnosing of heart disease characterized by insufficent blood flow.

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CLARK



BALKE



HAUTY



GREEN



TANG



McKENZIE



DABNEY



POTNODE

Regents Announce New Faculty Appointments

Six staff members of the Federal Aviation Agency's new Civil Aeromedical Research Institute, Oklahoma City, have been appointed to part-time positions on the School of Medicine faculty. Five will teach in the Department of Physiology and one in the Department of Biochemistry.

The appointments are among ten, including two full-time faculty members, approved by the University of Oklahoma Regents.

Those from the Aeromedical group: Robert T. Clark, Ph.D., acting Institute director, Bruno Balke, Ph.D., chief of the Biodynamics Branch, and George Thomas Hauty, Ph.D., head of the Psychology Branch, all named professors of research physiology; James Albert Green, Ph.D., chief of the Biochemistry Branch, named associate professor of research biochemistry; Pei Chin Tang, Ph.D., Institute neurophysiologist, and Jess Mack McKenzie, Ph.D., chief of the Hematology Section, given titles of associate and assistant professor, respectively, of research physiology.

One of the full-time appointments also is in the Department of Physiology. Joe Mitchell Dabney, Ph.D., now a James W. McLaughlin postdoctoral fellow at the University of Texas Medical Branch, will become assistant professor of physiology September 1.

The second given a full-time position is Robert A. Patnode, Ph.D., chief of the Tuberculosis Research Laboratory at the Washington, D.C. Veterans Administration Hospital. He will come here in June as associate professor of microbiology.

Two physicians were added to the part-time faculty. Robert Edward Ashley, (M.D., OU, 1955), superintendent of Central State Hospital, is a new clinical assistant in psychiatry, and Louis Joseph Bernard (M.D.,

Meharry Medical College, 1950), became clinical assistant in surgery.

Doctor Ashley took his residency training at Central State. Doctor Bernard was a National Cancer Institute research fellow at the University of Rochester for three years. He took surgery residencies at Hubbard Hospital, Nashville, and Memorial Center for Cancer and Allied Diseases, New York City; was instructor and an American Cancer Society clinical fellow at Meharry before opening practice in Oklahoma City.

All of the appointees from the Aeromedical Research Institute came to Oklahoma City from the Air Force School of Aviation Medicine at Brooks Air Force Base, San Antonio. They are studying problems in aging, performance and survival.

Doctor Clark was head of the space Medicine Division of the Aerospace Medical center at Brooks. He holds a Doctor of Philosophy degree (physiology) from the University of Rochester Medical School; is president of Southwestern section of the Society for Experimental Biology and Medicine; in 1959 won the Air Force highest civilian award for outstanding performance.

Doctor Balke, a native of Germany with M.D. and Ph.D. degrees from the Universities of Berlin and Leipzig, was physiologist with the USAF School of Aviation Medicine at Randolph AFB from 1950-59, then headed the biodynamics branch at Brooks. Doctor Hauty (Ph.D., University of Rochester), was associate professor of experimental psychology in the Space Medicine Department.

Doctor Green was awarded his Ph.D. at Rice Institute in 1956. He spent four years at the School of Aviation Medicine as assistant professor of medical physiology.

Doctor Tang went to the University of Washington Medical School from his native China in 1949 and received his Ph.D. there in 1953. He also was on the School of Aviation Medicine faculty (physiology) for four years before coming here. Doctor McKenzie, former medical physiologist with the Space Medicine Department, is a Ph.D. graduate of the University of Texas Medical Branch.

The newcomer to the Microbiology Department, Doctor Patnode, earned his Ph.D. degree at the University of Minnesota. He was bacteriologist and then acting chief of the Tuberculosis Unit, Communicable Disease Center, Atlanta, Ga., before going with the Veterans Administration. He serves as research consultant to George Washington University.

Doctor Dabney will return "home" to take the physiology department post. A former teacher at Oklahoma City's Capitol Hill Highschool, he completed both his master's and Ph.D. work at the OU Medical Center, later taught at Creighton University School of Medicine, Omaha.

New Professorships Announced by Regents

Three faculty members were made professors emeritus and eight were advanced to the rank of full professorship in recent action. Altogether, University of Oklahoma Regents approved a total of 62 promotions at the School of Medicine.

New professors emeritus are Clark H. Hall, M.D., in pediatrics; Joseph C. McDonald, M.D., and Theodore G. Wails, M.D., both in otorhinolaryngology.

Moving up from associate professor to professor are Alice M. Brues, Ph.D., in anatomy, and W. W. Schottstaedt, M.D., chairman of the Department of Preventive Medicine and Public Health, who also holds consultant professorships in psychiatry and medicine. Ranwel Caputto, M.D., of the Oklahoma Medical Research Institute staff, was named professor of research biochemistry.

Those with the new title of clinical professor are Meredith M. Appleton, M.D., and Jim M. Taylor, M.D., in urology, Harry L. Deupree, M.D., in obstetrics, Ella Mary George, M.D., in physical medicine, and Paul M. Vickers, M.D., in surgery.

Other promotions: from assistant to associate professor: in orthopedic surgery—

James C. Amspacher, M.D., Robert P. Holt, M.D., John R. Stacy, M.D., and William L. Waldrop, M.D.; obstetrics—Charles D. Bodine, M.D., and Robert D. McKee, M.D.;

Surgery—Vance A. Bradford, M.D., John A. Cunningham, M.D., Harrell C. Dodson Jr., M.D., Edward M. Farris, M.D., Robert D. Hirschi, D.D.S., A. C. Lisle, M.D., Robert A. Rix, M.D., Charles H. Wilson, M.D., and Leroy D. Wright, D.M.D.;

Medicine—William T. Bynum, M.D., Loyal L. Conrad, M.D., and Ephraim Goldfain, M.D.; ophthalmology, Richard A. Clay, M.D.; urology—Clarence B. Dawson, M.D., and John H. Dunn, M.D.; otorhinolaryngology—Jack V. D. Hough, M.D.; physiology—M. Jack Keyl, Ph.D.; dermatology—William G. McCreight, M.D., and Robert J. Morgan, M.D.; preventive medicine and public health—McWilson Warren, Ph.D.

From instructor to assistant professor: in obstetrics—Joe H. Coley, M.D.; medicine—Arthur F. Elliott, M.D., Sam N. Musallam, M.D., William R. Paschal, M.D., William H. Reiff, M.D., and William B. Thompson, M.D.; dermatology—Mark A. Everett, M.D., and Lloyd A. Owens, M.D.;

Ophthalmology—Emil P. Farris, M.D., William H. Garnier, M.D., and Robert W. King, M.D.; preventive medicine and public health—Pearl D. Fisher, Ph.D.; orthopedic surgery—William A. Miller, M.D.

From clinical assistant to instructor: in medicine—Julien Bahr, M.D., Charles W. Cathey, M.D., Ted Clemens Jr., M.D., and James K. DeVore, M.D.; surgery—William O. Coleman, M.D., Robert A. McLauchlin, M.D., and Hugh F. Maguire, D.D.S.; obstetrics—William F. Hood Jr., M.D.; ophthalmology—Samuel B. Leslie, M.D.; psychiatry—James A. Cox, M.D.

From visiting lecturer to instructor—Forest R. Brown, M.D., in preventive medicine and public health. From junior clinical assistant to clinical assistant—Joseph T. Herbelin, M.D., in anesthesiology.

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Acceptable for 12 hours Credit, Category 1, by the American Academy of General Practice

Special Articles

The Opportunity For Tax Reform

HONORABLE WILBUR D. MILLS

Chairman, Committee on Ways and Means, House of Representatives, United States Congress

MY INVITATION was to talk about practical opportunities for tax reduction. In doing so, I believe the logical place to start is with the budget and expenditures.

Some may feel that the predicted $4.2-billion surplus for fiscal 1961 means we will have a general tax cut this year. I do not believe this will or should happen as things now appear.

In the first place, there is a question as to whether we will really have a $4.2-billion surplus as the President predicted. Budget estimating is a risky business. You may remember that only two years ago the President predicted a surplus for fiscal year 1959 and we ended with a $12.4 billion deficit.

A federal budget is not written on a clean slate. A part of it is a guess as to the size of expenditures under pre-existing laws. A good example is payments to veterans. The total cost for any year is simply a matter of how many eligible veterans there are using these provisions.

In the area of agriculture, the estimate of the cost of the support commitments in the law is a guess as to such things as the weather, good or bad crop conditions, and market demand.

The accuracy of the $9.6-billion estimate for interest on the federal debt depends largely on future business conditions and on the monetary policy of the Federal Reserve Board. The estimate of interest costs for the current fiscal year is now approximately $1.2-billion above the budget prediction made just one year ago.

The expenditure forecast can miss actual spending quite widely due to unpredictable factors.

Another uncertainty as to the budget surplus is that the budget assumes that all the President's legislative recommendations will be enacted. This, I dare say, never happens. Again this year the expenditures carry a postal deficit, for example, which is reduced by $554-million on the assumption that the Congress will act on the recommendation to increase postal rates. This increase was specifically voted down last year and will not, in my opinion, pass this year.

The most difficult prediction problem in the budget is forecasting revenue. This involves business conditions 18 months in advance. Compared to other recent economic outlook studies, the President's outlook appears moderately optimistic although certainly within the realm of possibility. A somewhat slower growth in the economy than he predicts could easily mean budget receipts of less than the figure in the budget document.

Although we should strive to attain it, we can by no means be sure of a $4.2-billion

*Presented at the Freedom Forum 111, February 3, 1960, at Oklahoma Christian College, Oklahoma City, Oklahoma.

surplus. It is nevertheless, timely to discuss priorities for action if we should become convinced that it or something close to it will occur.

Many urge that first priority should be given to increased expenditures such as for defense, education, housing, highways, etc. The Congress is now reviewing the missile lag and our capability for limited war. There will be much debate in the Congress in this and other areas of expenditures.

If the receipts estimate should prove to be accurate and if the Congress does not vote significant changes in recommended expenditure, we then face the question of priority between tax reduction and debt reduction. As I stated, I do not think an immediate general tax cut can be justified. Nor do I believe that our citizens will be dissatisfied with a $4-billion surplus being applied to debt reduction. The economic outlook underlying the budget forecast is essentially a continuation of the inflationary situation which has beset us now for quite a few years. A budget surplus is an effective way of dealing with this inflationary pressure and is at present a basic requirement.

I have always urged that we plan our tax and expenditure programs to produce surpluses in good years to approximately meet the deficits of recession years. Much of the trouble that we are experiencing today, in my opinion, arises because we have not followed such a plan in the past. In fact, we have operated fiscal policy in such a way as to produce surpluses in only four of the last 29 years.

What are the prospects for tax reduction through expenditure limitations over the longer run?

As I stated, legislation calling for large continuing expenditures is already on the books. Here are a few examples. We have commitments for highway expenditures running into the mid-1970's. Outstanding improvement amount at the present time to some $17-billion. The commitment to future veterans benefits and government retirement payments at the present time amount to something more than $350-billion.

In spite of these known commitments and if expenditures are prevented from rising as rapidly as tax revenues rise in a growing economy, some reduction in tax rates can be enacted through this action alone. But such reduction in my opinion cannot be enacted in anticipation of freezing or reducing expenditure levels, but only after those conditions have materialized.

I will now turn from a consideration of the budget outlook as a basis for tax reduction to the possibility of tax reform that can provide a reduction in rates.

It is my view that tax reform is always timely provided equitable and desirable proposals which are practical of enactment can be made in our tax system. The Congress should periodically review the operation of our tax system and the relative burdens imposed on our citizens in order to assure the fair sharing of the burden of necessary taxation.

All too often, however, tax revision or reform programs have resulted primarily in enactment of legislative proposals for special tax relief, or, for the elimination of so-called discriminations by the extension of the application of existing relief provisions to additional taxpayer groups. Frequently these programs have resulted in provisions which were designed to meet some special social or economic need existing at the time of their enactment. Once entrenched in the law, such provisions have proven to be self-perpetuating and self-proliferating and have been retained and expanded even through objectives which were their initial justification. Historically, therefore, tax revision and reform programs have more often than not resulted in what has been aptly termed an erosion or a narrowing of the tax base. This, in turn, has resulted in the consequent necessity of imposing high tax rates in order to obtain the revenues needed to meet the costs of government operation.

In my opinion, our tax rates are too high and they have a strong tendency to blunt incentives and stifle economic growth. As you know, a large part of our present Internal Revenue Code, including its high rate structure, had it origins during wartime when concern over economic growth was

not a factor which had to be considered, and it still persists today in virtually the same form though its adverse impact upon incentives and economic growth and stability in a peacetime economy is becoming increasingly evident.

There is a general agreement that in order for this country to maintain its economic strength domestically and to continue in its dominant position in today's world, our rate of economic growth in the next decade must exceed that of any previous decade in history. As a part of achieving this objective there must be a substantial revision of our war-engendered and revenue-inspired tax system in view of the strong doubt that such growth can be attained under our present tax system. This is particularly true under out present high rate structure which, because of its rates and the unevenness of its application, limits initiative and causes tax considerations to over-ride business decisions which would otherwise be dictated by the signals of the market place.

Although it is my firm conviction that the basic purpose of taxation is to raise revenues required to meet the costs of government, gearing tax revision and reform to the objective of economic growth and stability is in no way inconsistent with this viewpoint.

It is obvious that when the cost of federal government accounts for approximately one-fifth of the total activity of the economy, we cannot ignore the economic impact of taxes.

With these factors in mind, the Committee on Ways and Means has under way an inquiry into the operation of our tax system under today's economy.

It is my view that the major objective of tax reform is a reduction in our stultifying tax rates and that this may not be possible to the extent required except through broadening the tax base. In arriving at this objective we must strive to develop a tax system that is characterized by fairness and equity in the distribution of tax burdens; that is conducive to the attainment of a desired rate of economic growth in the years ahead; that is neutral in economic impact and interferes as little as possible with the operation of the free market mechanism in directing resources into the most productive uses; and that affords greater ease of taxpayer compliance and governmental administration.

The first phase looking toward this end was initiated by a five-week period of panel discussions before the Committee late last fall. These discussions were designed to present an appraisal of our present income tax system in the light of the objectives that I have just mentioned and particular attention was given to the various provisions of the income tax law which serve either to narrow the tax base or to provide differential treatment for items included in such base, in order to permit a re-evaluation of their original social or economic justifications for inclusion in the Code in light of conditions as they exist today.

One of the proposals advanced by some panelists is the concept of imputed rent. This concept, which is primarily an economic concept, rather than a tax concept, would impute as income to a home owner the net rental value of his house and is included in the Department of Commerce's figures of annual total personal income. It was discussed in connection with a consideration of exclusions and deductions from income. Some panelists proposed that the deductions presently allowed for interest on home mortgages and for real estate taxes should be offset by the inclusion of the related imputed rent in gross income. Alternatively, it was suggested that the failure to include imputed rent in gross income was sufficient justification for a denial of these deductions. The discussions developed that there are serious questions as to Constitutionality, administrative feasibility and desirability that far outweigh any economic concept for including this in the tax base.

There were a number of other suggestions made by the panelists which would broaden the tax base by including in income certain cash payments which are presently exempt from tax, such as veterans' disability pensions. These items are "income" in the broad economic sense and their exemption from tax is a preference. However, their

inclusion in the tax base, as a practical matter, would not increase net revenues that could be used for rate reduction since the effective reduction in the amount of such payments that would result from making them taxable would very likely be offset by a compensating increase in the amount of such payments in order to maintain the status quo of the recipients. This is a case where theoretically the elimination of a preference might lead to greater fairness and equity among taxpayers but as a practical matter there would be no increase of revenue available for reduction in tax rates in end result since any revenue gains would most likely be offset by increased appropriation expenditures.

A like proposal for expanding the tax base was one that would include Social Security benefit payments in income but would allow employees a current deduction for the amount of their contributions to this system.

Under present law, as you know, an employer's share of Social Security contributions made for the benefit of his employees is deductible, and hence exempt from tax, even though the full amount of the Social Security benefit received by an employee upon disability or retirement is also exempt. Thus, no tax is ever paid on the funds used by an employer to make these contributions —either by the employer or by the employee. Here again fairness and equity might be considered to call for the elimination of this preference; however, such elimination would give rise to demands for an increase in Social Security benefits to offset any additional taxes imposed on the beneficiary. Analysis of the suggestion in this context indicates, in addition, that the combination of including the Social Security benefits in the base and exclusion of all contributions at the time made to the Fund would actually produce less net revenue. It is highly questionable, therefore, whether the adoption of this proposal would result in any overall improvement.

These types of suggestions as well as some others made by some of the panelists for revising the law are really not the type of changes which are basically needed in my opinion in connection with tax reform. They are either impossible of administration or else would make no contribution by their inclusion in a sound rate reduction program.

Suggestions were also made for broadening the tax base by curtailing or eliminating a number of the personal deductions that are presently allowed in computing taxable income. In this area there was no firm agreement among the panelists as to which of the various deductions now existing could be eliminated, but I believe that all agreed that some of the deductions should not be eliminated. Whereas it may be that all of the deductions now accorded to taxpayers cannot be justified, as I believe, it is equally true that some of these deductions do accomplish social or economic objectives. This area, like all other areas, if viewed strictly from the standpoint of tax policy, including ease of taxpayer compliance and administration, would present no real difficulty of decision, but before action can finally be taken all other factors must be weighed. I have often pointed out what could happen to the rate structure if they were eliminated, but I have reached no final conclusion as to which of these should or can be eliminated.

In the area of business deductions, you as businessmen interested in depreciation allowances, will probably be pleased to learn that the majority of the panel experts that discussed this subject were in favor of increased, rather than decreased, depreciation allowances. Among other things, it was suggested that this be accomplished by accelerating depreciation deductions through shortening depreciable lives, increasing the allowable depreciation rates, or allowing larger initial write-offs in the year of acquisition. Proponents of these accelerated depreciation proposals would also provide ordinary income treatment rather than capital gain treatment to the proceeds received on the ultimate disposition of rapidly-depreciated assets.

The panel of experts on the subject of depreciation presented compelling arguments as to the adverse effect of present depreciation policies on the growth of our economy and on the ability of our manufacturers to compete in either the domestic or world markets with their foreign competitors. In

this connection, let me reiterate what I have said earlier—that is, that in my view, gearing tax reform to the objective of economic growth is not inconsistent with the basic purpose of taxation—the raising of revenue. However, the advantages of the adoption of liberalized depreciation rules and the resultant effect on revenues must be balanced against the distortion that would inevitably result in the distribution of the total tax burden among other sectors of the economy. It is conflicting factors such as these that the Committee must weigh in its overall consideration of a program of tax revision and reform.

I regret that time does not permit me to refer to all the major topics covered in the panel discussion.

The Committee on Ways and Means in my opinion has been impressed with the magnitude of the job of reaching a sound judgment with respect to what changes should be made in our income tax structure and in the manner in which changes should be made in those areas which do appear to offer some practical possibility of achievement.

As I have said many times before, constructive tax reform cannot be accomplished overnight in view of the extreme care and thorough-going analysis that must be given to the various proposals that have been made. However, evidence was presented to the Committee that certainly justifies our maximum efforts in this undertaking. For example, it is stated that the elimination of the major preferences and differentials presently contained in the Internal Revenue Code would permit a 30 per cent across-the-board reduction in rates without sacrificing present revenues. This would mean that the present individual rate scale that starts at 20 per cent and progresses to a maximum of 91 per cent could be reduced to about 14 per cent and 64 per cent respectively. Even if only some of these preferences and differentials were eliminated, the evidence indicated that we could have a 20 per cent rate reduction across-the-board and thus have a minimum 16 per cent rate and a maximum 73 per cent rate without jeopardizing the revenues. Similar percentage reductions could also be expected in corporate income tax rates.

It should also be pointed out that during the course of the panel discussions the Committee not only looked to possible changes in the law itself but also to the whole broad area of administration of the existing provisions of the Code to determine whether there are areas wherein collections of revenues can be improved. Some witnesses pointed out the possibility that as much as $28-billion of personal income presently subject to tax might be escaping taxation.

This would represent, in terms of revenue, perhaps as much as $5-billion. If this were found to be true, and if this amount of revenue could be collected and thus added to the $4-billion surplus which has been predicted if it materializes and is available to be used, we could reduce rates by 20 per cent across-the-board.

While a reduction in rates is the primary objective of the revision and reform study of the Committee, we are seeking at the same time a system with greater simplicity, greater ease of compliance, and better enforcement procedures. The balancing of these with the other factors that I have mentioned precludes our coming up with overall revision legislation promptly.

Should it develop that expenditures can be reduced, I would agree with those who contend that this is the easier and most expeditious way to achieve prompt tax rate reduction. However, to produce a fair and equitable tax system that is easy to enforce and that is conducive to sustained economic growth is a much more difficult and time-consuming task, particularly if revenue requirements continue at their present or even higher levels. The attainment of such a system, in my opinion, will require more than merely its sponsorship by a Committee of the Congress. It can be realized only by the full and active support of the public generally and businessmen such as you in particular.

Rounding out 20 years as Douglass High School principal, in Oklahoma City, the author was born of onetime slaves who homesteaded near Fallis. Starting as "head teacher" at a Crescent 2-room school, he has become acknowledged dean of Oklahoma Negro educators.

If I Were 21 Again*

F. D. MOON

When the shadows have begun to lengthen slightly toward the sunset, the suggestion of going back to 21 quickens the imagination.

Out of my first 21 flow such names as Woodrow Wilson, Lloyd George, Clemenceau, Von Hindenberg, Col. Charles Young and General Pershing. One hums again such songs as "Keep the Home Fires Burning," "It's a Long Way to Tipperary," and, maybe, "The Beale Street Blues."

One recalls such significant events as the mass migration of Negroes to the north to work in the factories and the rebirth of the Ku Klux Klan as a device for dimming the hopes of black soldiers returning from Flanders fields and the Argonne Forests in a crusade to "make the world safe for democracy."

Back to 21 a second time for me would find new words, new concepts and new horizons — "sputniks," "in orbit," "space age," "jet propulsion," "ballistic missiles," "integration," "White Citizens' Councils," "open heart surgery" and "Civil Rights."

New names, such as Eisenhower, Khrushchev, De Gaulle, Nehru, Nkrumah, Nasser are on the tongues of millions.

The spotlight of teeming millions has shifted now to India, Pakistan, Red China, Israel, Jordan, Sudan, Ghanna, Egypt, Ethiopia, Liberia, Kenya and Japan.

Since the educational, economic and social patterns for my people today have a much brighter hue, if I were 21 again I would urge Negro youth to move into many new vocations of semi-skilled and very technical types.

I would urge them to prepare to answer the call for entrance into petroleum, and other branches of engineering, architecture, mental health careers, aviation and all areas of productive labor, relying upon the deepening social conscience of justice and equal opportunity to be the yeast to leaven the whole gamut of job opportunity in our society.

There is a common thread which runs through these four decades. In spite of all the modern miracles in medicine, outer space, longer life span and the staggering evolution of the mass media of communication and transportation, human nature remains largely unchanged.

Shall I cite an illustration in support of the constancy or similarity of human nature down through the ages? The Oriental Institute on the campus of the University of Chicago houses relics of Egyptian, Assyrian and Babylonian antiquity.

In the Babylonian department were many inscriptions written upon tablets of clay. When translated one inscription read, "A receipt for 20 donkey loads of hay." Another translation was entitled, "A promissory note to repay a loan for so many donkey loads of hay."

(Continued on Page 555)

*Reprinted through the courtesy of the Oklahoma City Times, February 10, 1960.

PRESIDENT'S LETTER



The annual meeting of the American Medical Association has turned out to be the biggest medical show on earth, and the meeting this past month in Miami Beach, Florida was one of the best, with over 8,000 physicians registered in attendance. The administrative side of the meeting is run most efficiently with the House of Delegates meeting on the first day to hear messages from the outgoing president of the Association and various other dignitaries and then going through the routine business of reports of committees and councils plus the introduction of resolutions from the various State Associations and in some instances, from individuals. The second day these resolutions are taken up for discussion by the various committees to which they are assigned, meeting rooms being set aside of sufficient size that each committee can have 100 or 200 physicians who are interested in attendance at the committee sessions. These sessions go on all day.

The delegation from the Oklahoma State Medical Association met immediately following the first day's activities and each of our men was assigned to attend a given committee session. These so-called Reference Committees evolve into the real policy-making segment of the AMA and their sessions are open to all AMA members. The Reference Committee work goes on through the second day of the meeting and recommendations are then presented to the House of Delegates on the third day. This, again, is an all day session and continues over into the morning of the fourth day, so that there are three and one-half days of administrative business for physicians who are sent to these meetings by the constituent associations. The average physician attending an AMA convention sees none of this work in the House of Delegates and the various committees, and it looks to be a very drab affair on casual observation. It is tedious work. Every phrase and every word of expression from this administrative body of the AMA must be carefully chosen to represent exactly what decisions the some 180,000 physician-members wish to be official expressions.

Your Delegates, Wilkie Hoover and Malcolm Phelps, and Alternate Delegates, Joe Duer and R. Q. Goodwin, serve you well.

Walter E. Brown, M.D.

Walter E. Brown, M.D.
President



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Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. *80*:481 (Oct.) 1958. 2. Ferrand, P. T.: Minnesota Med. *41*:853 (Dec.) 1958. 3. Mathews, F. P.: Am. J. Psychiat. *114*:1034 (May) 1958.

SEARLE

Oklahomans Reject Forand-Type Health Programs

The position of organized medicine in opposition to providing health care for the aged through the Social Security mechanism received the endorsement of Oklahoma citizens during the closing minutes of the Oklahoma White House Conference on Aging, held June 7, 8, and 9, in Norman. Nearly four hundred delegates to the conference rejected a last minute proposal to recommend consideration for the Social Security approach, despite considerable effort by the AF of L-CIO to ramrod the motion through.

While the decision was not unanimous, medical representatives considered the matter a major victory and were pleased to learn that the majority of citizens object to Federal intervention, preferring to solve problems on a local basis. The decision effectively refuted the claims of some Congressmen who have ballyhooed that the people want nothing short of the Forand Bill proposal.

During the lengthy discussion of the issue, physicians informed the group of the position of medicine toward such broad-scale legislation. It was pointed out that the Forand Bill would cost taxpayers over $2 billion per year to provide health care to all persons over 65 on the Social Security rolls. The delegates were also reminded that such a system would not benefit many of the needy elderly, since they would not qualify for Social Security. The infamous history of social insurance programs in other countries was traced for the delegates, and medical spokesmen urged a conservative approach to the problem.

Other States to Meet

Oklahoma's conference was one of the first state meetings to be held during 1960. Every state in the nation will soon hold similar meetings, and delegates will be appointed to represent the states at a national White House Conference on Aging, scheduled to be held in Washington, D.C. in January, 1961. From the national meeting will come recommendations to the President which may very well shape the future course of Federal lawmakers.

Conference Recommendations

A complete report of the Oklahoma recommendations follows, grouped according to the governmental level where directed:

Recommendations to the Community

- Recognizing that many older people may not be able physically to work a full eight hour day or forty hour week, consideration should be given reduced work period for older employees and consideration to the employment of older employees on a part-time basis.

- Through cooperation of the hospitals and medical profession, provide health insurance and care that older people can get at reasonable cost.

- Promote and project educational programs to educate people of all ages to plan for their own old age security.

- That local communities be encouraged to explore and utilize all resources, local and state, for the vocational rehabilitation of older disabled workers.

- Recommended: To expand and encourage the use of Visiting Nurse programs and Home-Care services as well as promoting

the training of lay individuals who are called upon to provide home care of the ill.

• That communities establish Community Councils for Adult Activities which will include consideration for older citizens.

• That the Community Councils arrange programs for the home bound with the assistance of other agencies and organizations.

• That Oklahoma communities be urged to provide good public library service to the aging and to those working with the aging.

• Each community should study its own housing problems and make provisions for necessary action to meet needs. Each community should have a fact finding central group (for example, Mayor's Committee, Chamber of Commerce, Council of Social Agencies, Rural Development Council, etc.) for assembling information regarding housing needs of the aging, the facilities available and planned, and the resources, public and private, which may be made available. This fact finding body should function on a continuing basis and exchange information with the central state coordinating group.

• The private builders, churches, and business men should be encouraged to take the lead in building low-cost housing of small, low-energy-type homes and make them available to low income Senior Citizens either on rental basis or long-term purchase plan. Each community should take advantage of private resources, public laws and services to provide various types of housing according to anticipated needs of the aging based on population trends, income, health, etc.

• A review of housing laws, building codes and standards, to provide accurate information and serve as a basis for additional legislation, if needed, to provide safe and sanitary housing for the aging and for enforcement of regulations.

• Rest home and nursing home facilities should be expanded and improved for the care of those older persons who need supervising and nursing care. There should be more rigid supervision, classification according to facilities, training, and suitability for various types of patients. In service training in nursing and psychological principles should be given to the personnel of these homes to insure better care, both physical and emotional.

• Mental health clinics should be established by the communities to provide treatment, consultation, diagnosis and community education. Although serving all age groups these clinics would provide essential mental health services to the older person in his own community.

• Community volunteer programs should be organized under the supervision of a professional person: (a) to provide direct service to the older person such as providing transportation, stimulating activity interests, helping with everyday needs, etc. and (b) to encourage senior citizens in volunteering their services.

• We recommend that communities organize a board made up of members from local and civic organizations to coordinate social services at local level.

• Recommend that the county medical association committee on aging continue its efforts to bring about the formation of state and local committees on aging to advise administrators of nursing homes and homes for the aged concerning their programming of medical care.

• That community leaders accept responsibility for stimulating community interest and action in solving the problems of aging.

• That each community utilize fully its local resources in identifying, defining, and trying to solve problems relating to an aging population, then that consultant services of colleges, universities and other state agencies be sought if necessary.

Recommendations to the State

• Program of training and re-training of older workers, to be promoted by the State Board of Education and Educational Institutions.

• Request the legislature to create an office to promote the employment of the elderly patterned after the existing office for employment of the physically handicapped.

• In consideration of the needs eligibility for old age assistance increase the amount

of reserve holdings permissible to qualify for assistance.

• That there be developed at the state level a comprehensive diagnostic evaluation and treatment center (or centers) (preferably in connection with the University of Oklahoma School of Medicine) to determine the extent of disability, aptitudes and characteristics essential to the training and employment of older disabled persons.

• That the people of Oklahoma approve state question 390 allowing the taxpayers of each county to assess themselves up to 2½ mills to be used only for the operation of a local county Health Department.

• It is further recommended that the County Commissioners be statutorily required to appropriate from the county general funds to supply needed medical care and diagnostic services to the medically indigent.

• It is further recommended that the State Health Department through local County Health Departments develop geriatric and rehabilitation clinics in the principal urban areas of the various geographic areas of the state.

• It is recommended that a communications and coordination unit be established by county medical societies, public health units and community leaders in order to maintain effective liaison and voluntary programs to assist the needy elderly in the prevention of illness and correction of health problems. In order to accomplish the above, it is recommended that the Governor establish, under his direction, a "dollar-a-year" type Committee on Aging, with a full-time Executive Director. The committee should be comprised of professional, educational, religious and business leaders of the state, with sufficient staggered tenure to permit continuity of planning. The committee must be free from politics and from the control of any agency or department of government. Similarly constituted committees should be established at the county level.

• It is recommended that a dental school be established in the State of Oklahoma in order to improve the supply of personnel and thus the quantity and quality of dental service available to the aged.

• That a State Resource center be established to disseminate information, provide consultant services and act as a clearing house for communities in conducting educational and recreational programs for older citizens.

• That there be a greater emphasis by educational institutions, professional associations, and other agencies on providing good training for those who work with older adults in programs of education and recreation.

• This committee feels very strongly that permissive legislation should be enacted by the Oklahoma Legislature making it possible for a community to take advantage of the Public Housing Act. Oklahoma is one of only four states which does not have this enabling legislation. We do not recommend that all or any communities develop public housing, but we do heartily recommend the state legislation to make such housing possible if any community needs and desires it.

• Establishment of a central committee or agency to gather and disseminate information on all phases of housing the aged. We suggest that an Institute of Gerontology might well be a function of the University and that materials on all phases of housing of aging persons would be one of the major functions. Such a department would serve in correlating activities of local groups and assist in organizing groups where none exist.

• A review at state level of housing laws and standards to provide accurate information and serve as a basis for additional legislation if needed.

• Community mental health programs should be co-sponsored at the state level. This should include policy and standards development, partial financial support, and promotional leadership.

• Training programs for the mental health professions should be expanded extensively by the appropriate state agencies.

• That Oklahoma Legislature increase administrative apportionment for the Okla-

homa Department of Public Welfare to make more social services available.

• That the State Medical Association and State Pharmaceutical Association take steps to establish pharmacopia for guidance of physicians and nursing home administrators to alleviate prescribing expensive medicine for patients that might do well on less expensive medicine.

• Recommend the licensure agency (The Oklahoma State Department of Health) should be provided with an adequate budget in order to employ personnel for program planning on a continuous basis to conduct and coordinate an adequate educational program and to enforce standards and legislature regarding these facilities.

• The establishment of a study group at the state level composed of representatives from all universities and colleges to determine the most useful role of high education in the field of gerontology.

• University and college faculties should take advantage of special courses to increase their knowledge in gerontology so that this information may be incorporated in all appropriate courses and programs of study.

• Research relating to problems of aging be encouraged in the senior universities of each state.

Recommendations to the Federal Government

• Amend the social security act to allow employment income equivalent to 2000 hours at the prevailing federal minimum wage without loss of social security benefits.

• Amend federal act to permit up to $50.00 per month earned income without suffering loss of Old Age Assistance.

• Recommended that the federal government broaden research efforts into the study of the complex problems peculiar to the older disabled persons and discovery of more effective means of dealing with them in the local community.

• That the Federal Government co-ordinate and disseminate information, and aid and assist the states on adult education and recreation.

• Coordinating and combining activities at the Federal level to insure better dissemination of information on housing which is available at the Federal level.

• New types of mental health facilities such as day hospitals, night hospitals, halfway houses, sheltered workshops, and rehabilitation centers should be developed in cooperation with the states. These would increase present services and provide experience with new methods.

• We recommend that the Federal Matching Administrative funds be made available for Social Services to persons without regard to assistance status.

• National support from foundations, agencies of government, and other sources be provided to universities for faculty members, fellowships, and special research in gerontology.

• That research be undertaken to develop and implement better criteria for retirement than chronological age.

General Recommendations

• In order to provide health care to the aged, voluntary programs should be emphasized, with tax-supported activities limited to the medically indigent, and/or disabled who cannot be helped through voluntary means, such as individual and group health insurance programs, civic and voluntary health agencies, etc.

• Since the aged are as dependent as all other groups upon personnel for health care, it is pertinent to the provision of their care that personnel resources become the object of intense study by this conference and all related efforts. Specifically, it is recommended that the supply of professional medical, dental, nursing and paramedical personnel be evaluated and that motivation programs be developed which will insure a continuing supply. This study will properly investigate social, economic, academic and political factors which operate in the production of medical and paramedical personnel.

Report on AMA Actions
MIAMI BEACH, 1960

Health care for the aged, pharmaceutical issues, relations with allied health groups and relations with the National Foundation were among the major subjects involved in policy actions by the House of Delegates at the American Medical Association's 109th Annual Meeting held June 13-17 in Miami Beach.

Leonard W. Larson, M.D., Bismarck, North Dakota, former Chairman of the Board of Trustees, was named president-elect. Doctor Larson will succeed E. Vincent Askey, M.D., Los Angeles as president at the Association's 1961 annual meeting in New York City.

The AMA Distinguished Service Award, one of medicine's highest honors, was given to Charles A. Doan, M.D., who will retire next year as Dean of Ohio State University College of Medicine.

Total registration through Thursday, June 16, was 8,706 physicians.

Health Care For the Aged

After considering a variety of reports, resolutions and comments on the subject of health care for the aged, the delegates adopted the following policy statement:

"Personal medical care is primarily the responsibility of the individual. When he is unable to provide this care for himself, the responsibility should properly pass to his family, the community, the county, the state, and only when all these fail, to the federal government, and then only in conjunction with the other levels of government, in the above order. The determination of medical need should be made by a physician and the determination of eligibility should be made at the local level with local administration and control. The principle of freedom of choice should be preserved. The next use of tax funds under the above conditions to pay for such care, whether through the purchase of health insurance or by direct payment, provided local option is assured, is inherent in this concept and is not inconsistent with previous actions of the House of Delegates of the AMA."

The House also asked the AMA to increase its educational program regarding employment of those over 65, to assure them of " . . . the right to work and the right to live in a free society with dignity and pride." An AMA-sponsored assembly was approved, to bring together interested people for the purpose of developing specific plans for the health care of the aged.

Pharmaceutical Issues

Two actions were taken . . . one regarding mail order drugs, and the other involving the development and marketing of drug products.

Mail order drugs were ruled to be in conflict with the best interests of the patient, except where geographically necessary. It was said that such a system disrupts the value of the patient-physician-pharmacist relationship.

The AMA Council on Drugs was asked to study the pharmaceutical field in its relationship to medicine and the public and to submit an objective appraisal to the delegates in June, 1961. The delegates observed that certain, current proposals might impair research and thus retard progress in scientific therapy.

Allied Health Groups

The House endorsed a report covering the relationships of medicine with allied health professions and services, and approved the appointment of a committee to continue the work.

Activities to be pursued by the AMA were outlined as follows:

1. A general conference should be held with allied scientists in the basic medical sciences and related disciplines for discussion of matters of common concern related to the creation of permanent, cooperative activities.
2. Specific exploratory conferencs should be held with members of segments of science allied to a given area of medical practice with the national medical organizations concerned.
3. General and specific conferences should be held with professional and technical assistants on education, recruitment and coordination of contributions.
4. Through meetings and publications, reciprocal exchange of information should be provided between physicians and allied scientists and members of health professions.
5. Effective, continuing liaison should be established between AMA representatives and professional and technical personnel.

National Foundation

Two actions were taken by the House . . . the creation of guiding policies to improve liaison with the National Foundation at the state level, including the basic principles for compensation for physician services . . . and, the encouragement of follow through activities aimed at eradication of poliomyelitis.

House Tosses 'Aged' Issue to Senate

In approving H.R. 12580 on June 23, the House of Representatives referred the question of health care for the aged to the Senate, where it promises to receive spotlight attention during the closing days of Congress.

Commonly referred to as the Mills Bill, the measure amends the Social Security Act in three areas other than medical care: by authorizing an incentive program to the states for improvement of their public assistance programs; by the liberalization of requirements for OASI disability benefits; and, by extending compulsory Social Security coverage to physicians. The bill was authored by the House Ways and Means Committee as compromise legislation, particularly in reference to the Forand Bill and the Administration health care program, both of which were previously rejected by the committee. H.R. 12580 passed the House by a vote of 380-23.

Medical Care Proposal

The health care feature of the bill would amend the Social Security Act by adding a new title, under which medical services would be financed for individuals 65 and over who are determined by the state to be medically indigent. States would be required to submit plans which could include: inpatient hospital services (semi-private room for 120 days, medical, nursing, lab, x-ray, etc.); skilled nursing home services (licensed nursing home which is either operated in connection with a hospital or under medical supervision); outpatient services (medical and surgical care provided through a hospital to an outpatient); organized home care services (authorizes physician or physician-prescribed visiting nurse services to the home, through a nonprofit organization); private duty nursing service (home nursing care as prescribed by a physician); therapeutic services (physical therapy for disease or injury as prescribed by a physician); major dental treatment (for conditions "seriously affecting" health); laboratory and x-ray services (up to $200 per year as prescribed by a physician); drugs (up to $200 for drugs prescribed out of hospital, no limit for inpatients).

State plans must operate in all political subdivisions, must be administered by a single state agency and must have financial participation by the state. No OAA, ADC, blind or disabled recipients of assistance would qualify, and benefits under the new program could not exceed health benefits offered the above categories of assistance. The Secretary of Health, Education and Welfare would approve state plans and such plans would receive federal grants based upon per capita income of the state, as is done under present assistance programs. The federal share could not be less than 50% of the program cost, nor more than 65%. It is estimated that the program would cost from $300 million to $500 million per year, with the federal government putting up about 60%.

Other Provisions

Under the bill, increased appropriations are offered to states in the areas of maternal and child health services, crippled children's services and child welfare services. Eligibility for disability insurance benefits under OASI would be liberalized to the extent that the age 50 eligibility point would be eliminated.

Physicians would be brought under the Social Security program on a compulsory basis. They would be liable to a tax of 4½% on their 1960 income, up to $4800. Interns and residents would pay 3% of income, after January 1, 1961.

Outlook

The AMA approves of the health care plan, but is opposing Social Security for physicians. Washington observers say the AFL-CIO will make a strong effort to replace the health plan with the provisions of the controversial Forand Bill. Congress has recessed until August 8, after the political conventions. The conventions may have an adverse affect on the final disposition of H.R. 12580.

Nursing Homes Begin Classification Program

In an effort to establish and define uniform standards, the Oklahoma Nursing Home Association is now in the process of implementing recently-adopted regulations for the classification of both member and non-member homes. Any individual, corporation, or association desirous of participating in the program may make application, provided the facility has been licensed under the laws of Oklahoma and been in operation for a period of three months. To date, seventeen homes have asked for classification.

The purpose of the classification program is to determine and designate nursing homes in Class A, B, and C brackets. In the past, there was no way for the public to evaluate the quality of care to be found in the various nursing homes licensed under state laws. Adopted from plans in other states, the Oklahoma program will be one of the nation's most comprehensive, and is expected to greatly elevate the quality of nursing home care throughout the state.

Welfare Department Offers Incentive

The State Department of Public Welfare has endorsed the plan to the extent that it will make a financial differential between the three classifications. Such variation in monthly payments will undoubtedly cause many sub-standard homes to raise themselves to at least the next higher bracket.

Committee to Judge

The inspection and evaluation of the facilities will be made by a Classification Committee, comprised of five members of the Oklahoma Nursing Home Association, and one representative each from the Oklahoma State Medical Association, the Department of Public Welfare, the State Department of Health and the Oklahoma State Nurses Association.

Classification fees are $100 for a member home and $150 for a non-member. Reclassification on an annual basis may be obtained at the same rates.

Scoring Report

Under the classification system, the Committee will use a seven part survey in evaluating each applicant, from which it will prepare a "Nursing Home Scoring Report," detailing the points awarded to the home out of a possible 1000. The seven areas of investigation and the maximum point rating possible under each are listed below:

		Maximum Points
Part I	Physical Setting	125
Part II	Administration	245
Part III	Personnel	350
Part IV	Nursing Services	105
Part V	Medical Information	100
Part VI	Liaison With Other Groups	50
Part VII	Diversional Activities Provided by the Home	25
Total		1,000

New Catalog of Medical-Health Films Available

A revised list of films available from the A.M.A. Motion Picture Library has been prepared and copies are now available upon request. This new catalog lists 175 medical films suitable for showing to medical societies, hospital staff meetings, medical students and other scientific groups. In addition, there are 81 health films of interest to physicians who may be called upon to speak before lay audiences such as service organizations, Parent-Teacher Associations, etc.

The film catalog is completely new in design with such features as eye-ease typography, subject index, alphabetical listing of film titles, order blanks and a system of color coding so that films for the laity and professional audiences may be quickly identified. Copies may be obtained without charge by addressing your request to the American Medical Association, Department of Medical Motion Pictures and Television, 535 North Dearborn Street, Chicago 10, Illinois.

Physician Population Increases By 4,769 in 1959

The physician population of the United States and its possessions increased by some 4,769 in 1959, the Council on Medical Education and Hospitals of the American Medical Association has reported.

This was an increase of 660 over the gain reported in the previous year, according to the council's report in the (May 28) *Journal of the American Medical Association.*

The increase of 4,769 results from the licensing of 8,269 new phyicians minus approximately 3,500 physicians who died.

Of the 8,269 new physicians, 1,626 were foreign-trained.

The largest number of first licenses issued was 1,121 by New York. Three other states issued more than 500 first licenses—California 676, Illinois 521, and Pennsylvania 530.

The most notable increases, compared with 1958, were in Alabama, Connecticut, Illinois, New Jersey, Puerto Rico, South Carolina, and Tennesee. There was no marked decrease evident in any state.

The over-all total of licenses to practice medicine and surgery issued in 1959 was 15,954. This figure represented 7,720 granted after a successful written examination and 8,234 granted by reciprocity and endorsement of state licenses or the certificate of the National Board of Medical Examiners. This was an increase of 714 over 1958.

There were 8,996 applicants for licensure by written examination of whom 1,162, or 12.9 per cent, failed. This may be compared with 8,633 applicants of whom 1,365, or 15.8 per cent, failed in 1958.

Nine schools in the United States had no failures among their graduates in medical licensing examinations last year. They are the University of California, Los Angeles; University of California, San Francisco; Louisiana State University; University of Minnesota; University of Mississippi; University of Nebraska; Woman's Medical College of Pennsylvania; Medical College of South Carolina, and Marquette University.

The 8,996 examinees included 5,845 graduates of approved medical schools in the United States; 178 graduates of approved medical schools in Canada; 2,766 graduates of 244 faculties of medicine located in countries other than the United States and Canada; 22 graduates of the unapproved medical schools in the United States which are no longer in existence, and 185 graduates of schools of osteopathy.

The number of physicians registered in 1959 was 216,068, the greatest number in 56 years.

The report also included results of four examinations given in 1958 and 1959 by the Education Council for Foreign Medical Graduates to foreign students to certify that their medical knowledge is comparable to that expected of graduates of approved medical schools in the United States.

As of January 1, 1960, the ECFMG had examined 5,982 foreign medical graduates. Of these, 2,709 had been granted a standard certificate and 1,419 had been granted a certificate good for two years.

July 1, 1960, has been set as the date by which all foreign medical graduates serving as interns or residents in U.S. hospitals will have been certified. The ECFMG is sponsored by the American Hospital Association, the A.M.A., the Association of American Medical Colleges, and the Federation of State Medical Boards of the United States.

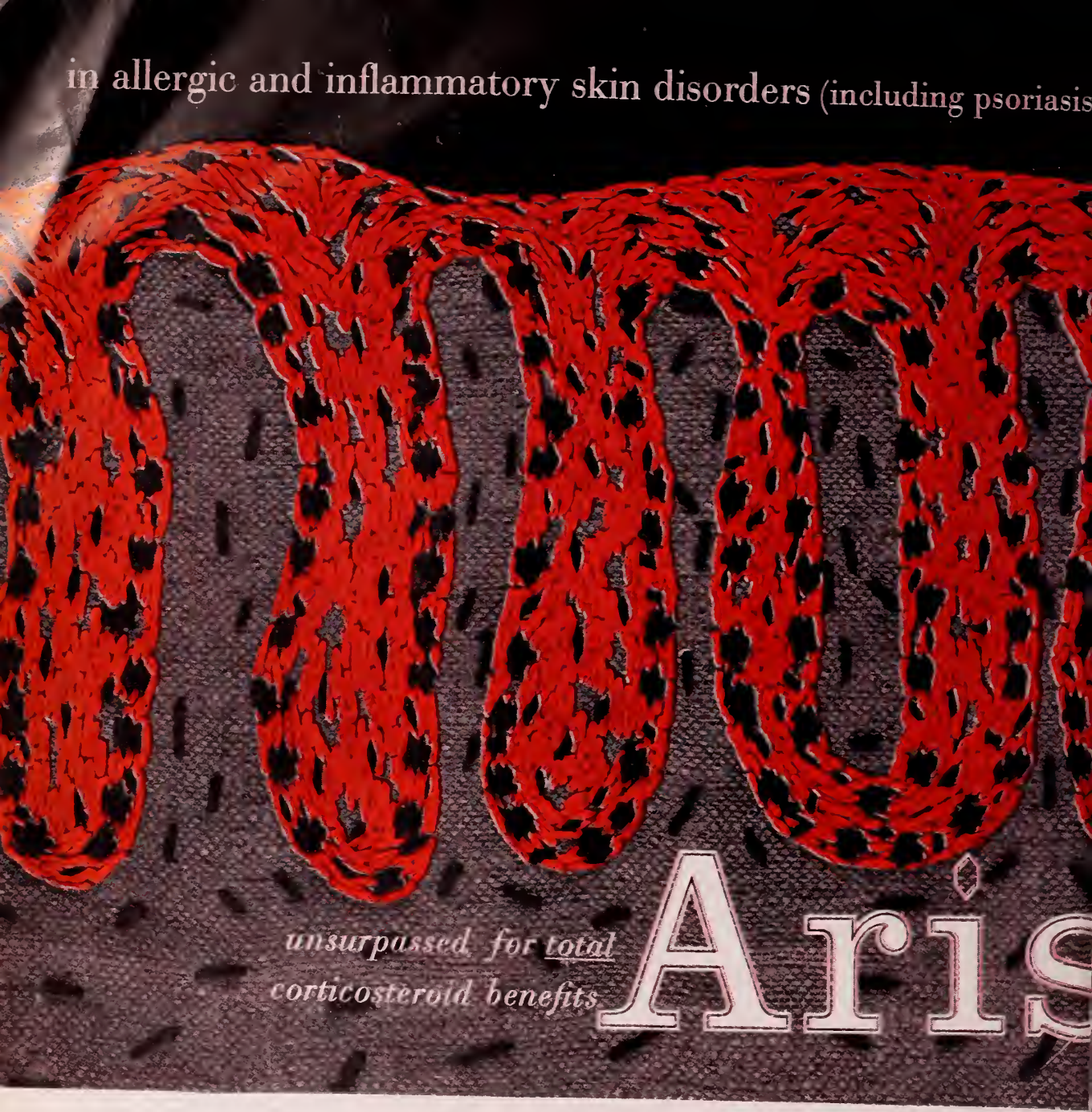
Doctors' Dance Band Entertains Enid Club

Eleven Enid physicians and dentists recently entertained Enid's American Business Club when their dance band presented a program of popular music.

Members of the band include: Evans Talley, M.D., Ed Abernethy, M.D., Pat Shanks, M.D., Bob Warrick, D.D.S., Joe Bryant, D.D.S., Henry Russell, M.D., Bill Buvinger, M.D., Lester Kirby, M.D., Clarence Roberts, M.D., Earl Mabry, M.D., and Jean Shryock, M.D.

The Enid organization is the second largest AB club in the United States, with 132 members.

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Substantiated by published reports of leading clinicians

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recautions: With ARISTOCORT all traditional precautions to corticosteroid therapy hould be observed. Dosage should always be carefully adjusted to the smallest mount which will suppress symptoms.

fter patients have been on steroids for prolonged periods, discontinuance must be arried out gradually over a period of as much as several weeks.

upplied: 1 mg. scored tablets (yellow); 2 mg. scored tablets (pink); 4 mg. cored tablets (white); 16 mg. scored tablets (white).

iacetate Parenteral (for intra-articular and intrasynovial injection). Vials of cc. (25 mg./cc.).

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PROCEEDINGS OF THE 54th ANNUAL SESSION OF THE HOUSE OF DELEGATES of the OKLAHOMA STATE MEDICAL ASSOCIATION

CLOSING SESSION*

The Closing Session of the 54th Annual Session of the House of Delegates of the Oklahoma State Medical Association was called to order by the Speaker of the House, Doctor Clinton Gallaher, at 5:00 p.m., in the Mirror Room of the Municipal Auditorium, Oklahoma City.

The Credentials Committee reported a quorum was present.

Doctor Gallaher asked if there were any additional announcements, guests to be introduced, or council reports. None were forthcoming.

Doctor Gallaher turned the Chair over to Doctor J. Hoyle Carlock, the Vice-Speaker, and returned to the floor of the House in order to express his views on the proposed changes to the By-Laws of the Oklahoma State Medical Association. He told the House members that it was punishment enough for a doctor's narcotics license to be taken away from him without imposing further penalty by also depriving him of membership in the Association and a chance to make a livelihood, since many of the enfractions of the Narcotics Law were technical violations and not malicious intent.

Amendments to By-Laws

The Chair then called on Doctor William T. Gill, Chairman of the Constitution and By-Laws Committee, for a report. Doctor Gill presented the proposed amendments to the By-Laws.

The first amendment was to amend Chapter 1, Section 1.00 of the By-Laws by inserting in line 2, after the word "societies," the words, "residing in the State of Oklahoma."

Doctor Gill moved the adoption of this amendment. The motion was seconded by Marshall O. Hart, M.D., of Tulsa, and carried.

The second amendment to the By-Laws was to amend Chapter 1, Section 5.03 by inserting after the word "shall" in line 4, the words "upon recommendation of the Council."

Doctor Gill moved the adoption of this amendment, the motion was seconded by Doctor W. S. Larrabee of Tulsa and carried.

At this time Doctor James W. Kelley asked permission to speak to the House of Delegates.

To permit him to speak even though he was not a Delegate, **Doctor E. K. Norflect of Bristow moved that the By-Laws be suspended for Doctor Kelley to speak. The motion was duly seconded and passed.**

*Proceedings of the opening session appeared in the June Journal.

Doctor Kelley said he wanted to know what the feelings of the narcotics people were about doctors who have had their narcotics licenses taken away. He was told that they, too, consider this punishment enough and the doctor should not be further isolated.

The third amendment to the By-Laws was to amend Chapter 1, Section 1.00 by striking out all of the words following the word "Examiners" in line 8, and inserting the word "and" after the word "Council" in line 7.

Doctor Gill moved the adoption of this amendment. The motion was seconded by Doctor John E. McDonald of Tulsa and carried.

The next order of business was a report from the Resolutions Committee. Doctor E. C. Mohler of Ponca City gave this report as follows:

The first resolution had been recommended to the Resolutions Committee by the Custer County Medical Society.

Resolution Number 1

WHEREAS, Grady F. Mathews, M.D., has been Commissioner of Health of the State of Oklahoma for twenty years, and

WHEREAS, His service to the State of Oklahoma has not only been meritorious, but has also been recognized by national honors accorded him by his conferees, and

WHEREAS, Doctor Mathews has seen fit at this time to retire from his responsible position to continue in his chosen work as a Consultant in Public Health to the University of Oklahoma School of Medicine, and to the State of Oklahoma Department of Health:

NOW THEREFORE BE IT RESOLVED, That the House of Delegates of the Oklahoma State Medical Association at its 54th Annual Meeting held on this First Day of May, 1960, recognize and pay homage to the contributions Doctor Mathews has made in Oklahoma, not only to his profession but also in the field of public health, and

BE IT FURTHER RESOLVED, That the House of Delegates of the Oklahoma State Medical Association wishes him the greatest success in his new endeavor and pledges their whole-hearted cooperation.

Respectfully submitted,
CUSTER COUNTY MEDICAL SOCIETY
By (Signed by Ross Deputy, M.D.)

Doctor Mohler reported that the Resolutions Committee recommended the resolution be approved, and so moved. The motion was duly seconded and carried.

(Continued on Page 558)



OU Medical School Awards 85 Degrees

M.D. degrees were conferred on 85 men and women at the University of Oklahoma School of Medicine commencement this spring.

William M. Johnson, M.D., Oklahoma City, received the Oklahoma City Surgical Society award given annually to the most outstanding senior in surgery, and Thomas J. Honea, M.D., Muskogee, received the Onis George Hazel Memorial citation to the senior most nearly achieving the ideal doctor-patient relationship.

Doctor Pete Kyle McCarter, OU vice-president, presided, and Dean Mark R. Everett and Doctor A. N. Taylor, associate dean in charge of student affairs, presented degrees. Rites were May 29 at Holmberg Hall on the Norman campus.

Members of the 1960 class and their internship appointments: Doctor Edward N. Brandt Jr., Marietta, Oklahoma City Veterans Hospital; Doctor Carl R. Earnest, Shawnee, Doctor Bobby G. Eaton, Weatherford, Doctor Eldon E. Fitch, Newkirk, Doctor Glenn D. Hallum, Ada, Doctor Grover C. Harrison Jr., Vinita, Doctor George H. Ladd and Doctor Jerry R. Nida, Muskogee, Doctor Alvin W. Patrick, Sunnyside, Washington, Doctor Darren F. Ricchetti, Bolivar, Missouri, and Doctor Harold Stout, Waurika, all at University Hospitals.

At St. Anthony Hospital, Oklahoma City —Doctor Samuel C. Bernhardt, Omega, Doctor Billy E. Blevins, Enid, Doctor John D. Bush, Tulsa, Doctor John R. Caughron, Doctor Philip J. Mcguire, Doctor Edward A. Shadid, and Doctor Donald F. Wade, all of Oklahoma City, Doctor Gary G. Hays, Clinton, Doctor Herbert H. Lenaburg, Shawnee, Doctor Leo Meece, Frederick, Doctor Paul D. Patzkowsky, Fairview, Doctor Darrell R. Warren, Norman, Doctor Hamilton M. Winston, Lawton, and Doctor James W. Zeiders, Midwest City.

Doctor Loy D. Bridal, Cashion, Doctor Philip J. Campbell, Doctor Dean H. Diment and Doctor James W. Worley, Oklahoma City, Doctor Ronald W. Gilchrist Jr., Tulsa, Doctor Quillen M. Hughes, Altus, Doctor Dayne W. Ramey, Muskogee, and Doctor Marion C. Wagnon, Tipton, all at Mercy Hospital, Oklahoma City.

Doctor William L. Baker, Broken Arrow, Doctor Thomas G. Goodwin, Choctaw, Doctor Robert H. Hayes, McLoud, Doctor Laura J. Koehn, Oklahoma City, and Doctor Wayman R. Spence, Tulsa, Wesley Hospital, Oklahoma City.

Doctor Timothy H. Dennehy, Doctor Tommy G. Hodge, and Doctor Thomas J. Honea, Tulsa, Doctor Donald C. Karns, Watonga, Doctor Ron R. Sanders, Stillwater and Doctor Robert A. Yeakley, Muskogee, St. John's Hospital, Tulsa.

Doctor Robert S. Herrick, Farmington, New Mexico, Doctor George C. Markert, We-

woka, Doctor Frank R. Michener, Cushing, and Doctor William T. Morris, Tulsa, Hillcrest Medical Center, Tulsa.

Interning out of state are:

Doctor Wilbur K. Baker II, Poteau, University of Kansas Medical Center, Kansas City, Kansas; Doctor William L. Baker, Broken Arrow, and Doctor Henry E. Helvie, Tulsa, Wesley, Wichita, Kansas; Doctor Lowell E. Bast, Edmond, Doctor William C. Bosworth, Norman, Doctor Donald R. Carter, Poteau, Doctor Donald C. Gilliland, Oklahoma City and Doctor Floyd J. Lashley Jr., Tulsa, all at University of Texas Medical Branch, Galveston.

Doctor Ray F. Allen, Anadarko, Tripler Army, Honolulu, Hawaii; Doctor John T. Boaz III, Tipton, Robert B. Green Hospital, San Antonio, Texas; Doctor Bloyce Hill Britton, Jr., Ames, Oklahoma, Los Angeles County Hospital, Los Angeles, California; Doctor Peter L. Cason, Norman, University of Tennessee, Knoxville, Tennessee.

Doctor Harold M. Chandler, Broken Bow, Walter Reed, Washington, D.C.; Doctor Herschel L. Douglas, Oklahoma City, U.S. Public Health Service, New Orleans, Louisiana; Doctor Richard B. Dulany, Kingfisher, and Doctor Robert M. Souda, Norman, Parkland Memorial, Dallas, Texas; Doctor Edgar A. Gedosh, Poteau, Boston City Hospital, Boston, Massachusetts.

Doctor Virgil R. Jobe Jr., Oklahoma City, and Doctor Norma Sneed, Checotah, Queens, Honolulu; Doctor William M. Johnson, Oklahoma City, Johns Hopkins, Baltimore, Maryland; Doctor William I. Jones, Tryon, Santa Rosa, San Antonio, Texas; Doctor Paul E. Kaldahl, Oaks, Milwaukee County Hospital, Milwaukee, Wisconsin; Doctor William R. Kirkham, Stillwater, U.S. Public Health Service, Staten Island, New York.

Doctor Edward L. Koger, Miami, Oklahoma, Bryan Memorial, Lincoln, Nebraska; Doctor John A. Lanning, Tulsa, Kern County General, Bakersfield, California; Doctor Paul A. Leap, Oklahoma City, Bellevue Hospital Center, First Medical Division, New York, New York; Doctor Charles E. Marshall, Oklahoma City, U.S. Naval-Camp Pendleton, Oceanside, California.

Doctor Hubert L. McClure, Big Canyon, Oklahoma, Brooks Army, San Antonio; Doctor Duane C. Miller, Lawton, St. Lukes, San Francisco; Doctor William S. Muenzler, Oklahoma City, and Doctor Donald R. Resler, Cherokee, Evanston Hospital, Evanston, Illinois; Doctor Paul E. Roberts, Sand Springs, Baltimore City Hospitals, Baltimore, Maryland.

Doctor John Lee Sandford, Stillwater, Kaiser Foundation, San Francisco, California; Doctor Julius Scates, Woodward, St. Francis, Wichita, Kansas; Doctor Robert E. Stobaugh, Oklahoma City, Mound Park, St. Petersburg, Florida; Doctor Wayman J. Thompson Jr., Oklahoma City, Highland Alameda, Oakland, California; and Doctor Helen J. Toma, Snyder, Harbor General, Torrance, California.

OU Class of '50 Holds 10th Reunion

Western Hills Lodge, Sequoyah State Park, was the site of the 10th reunion of the 1950 class of the University of Oklahoma School of Medicine. Held on June 10 and 11, the meeting format represented a departure from the typical class reunion.

On Friday evening, physicians and their wives assembled for a smorgasbord dinner and informal social hour. Saturday morning, the activities began with a scientific program followed by the showing of an AMA film on the life of classmate Lloyd Judd, M.D. Recreation was scheduled for the afternoon and a social hour and dinner took place that evening. The banquet speaker was Howard C. Hopps, M.D., a former professor of the class.

Robert C. Mayfield, M.D., was chairman of the event. Scientific lecturers were: John Rollins, M.D., Claude H. Williams, M.D., Avalo V. Campbell, M.D., Lawrence Patzkowsky, M.D., Rafael Rigual, M.D., John A. Blaschke, M.D., Lt. Col. George N. Austin, USAF (MC), Capt. R. M. Gastineau, USA (MC), and William A. Matthey, M.D.

Minneapolis to Host National Cancer Conference

"Changing Concepts Concerning Cancer" will be the theme for the Fourth National Cancer Conference to be held in Minneapolis, Minnesota, September 13-15, 1960.

A complete program for the conference follows:

Tuesday, September 13

9:00 a.m.
GREETINGS

9:15-9:50 a.m.
ADDRESS ON THEME (General Session)
Speaker: Doctor Michael B. Shimkin

10:00 a.m.-12:30 p.m.
CANCER ETIOLOGY PANEL (General Session)
Chairman: Doctor Howard B. Andervont

1:30-5:00 p.m.
Symposia on:

CANCER OF THE BREAST
Chairman: Doctor Edward F. Lewison
Summary Session Participant: Doctor Alfred M. Popma

CANCER OF THE LUNG
Chairman: Doctor Alton B. Ochsner
Summary Session Participant: Doctor Arthur J. Vorwald

CANCER OF THE FEMALE GENITAL TRACT
Chairman: Doctor Joe V. Meigs
Summary Session Participant: Doctor John L. McKelvey

Wednesday, September 14

9:00-9:50 a.m.
ADDRESS: FRONTIERS IN BIOLOGY AND CANCER RESEARCH (General Session)
Speaker: Doctor George W. Beadle

10:00 a.m.-12:30 p.m.
CANCER PATHOGENESIS AND SPREAD PANEL (General Session)
Chairman: Doctor Warren H. Cole

1:30-5:00 p.m.
Symposia on:

CANCER OF THE GASTROINTESTINAL TRACT
Chairman: Doctor I. S. Ravdin
Summary Session Participant: Doctor Joel W. Baker

CANCER OF THE MALE GENITOURINARY TRACT
Chairman: Doctor Reed M. Nesbit
Summary Session Participant: Doctor Herbert Brendler

LEUKEMIAS AND LYMPHOMAS
Chairman: Doctor Sidney Farber
Summary Session Participant: Doctor Alfred Gellhorn

Thursday, September 15

9:00-9:50 a.m.
ADDRESS: CARE OF THE ADVANCED CANCER PATIENT (General Session)
Speaker: Doctor Herman E. Hilleboe

10:00 a.m.-12:00 Noon
CANCER THERAPY PANEL (General Session)
Chairman: Doctor Owen H. Wangensteen

1:00-3:00 p.m.
Symposia on:

CANCER OF THE SKIN
Chairman: Doctor Thomas B. Fitzpatrick
Summary Session Participant: Doctor Eugene Van Scott

CANCER OF THE HEAD AND NECK
Chairman: Doctor William S. MacComb
Summary Session Participant: Doctor Edgar Frazell

CANCER CONTROL
Chairman: Doctor John R. Heller
Summary Session Participant: Doctor David A. Wood

3:00-5:00 p.m.
SUMMARY SESSION (General Session)
Chairman: Doctor Eugene P. Pendergrass

Further information may be obtained by writing to Roald N. Grant, M.D., Coordinator, American Cancer Society, Inc., Medical Affairs Department, 521 West 57th, New York 19, New York.

Advanced Degrees in Medical Science Awarded

Three advanced degrees in medical sciences were awarded by the Medical Center division of the University of Oklahoma Graduate College at June commencement on the Norman campus.

Samih Y. Alami, whose major concentration was microbiology, received a Ph.D.; Leonard T. Higgins, DDS, a Master of Science in preventive medicine and public health; Harold Collins, a Master of Science in anatomy.

Doctor Alami was graduated from American University of Beirut, Lebanon. Doctor Higgins received his Doctor of Dental Surgery degree at Creighton University Dental College, and Collins did his undergraduate work at OU.

American Board OB-GYN Receiving Applications

Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, Part I and requests for re-examination in Part II are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline for receipt of applications is August 1, 1960. No applications can be accepted after that date.

The following change in requirements for certification was made by the members of the American Board of Obstetrics and Gynecology at the recent annual meeting in Chicago.

"A Resolution was passed at the recent annual meeting of this Board which eliminates the submission of Case Reports as part of the Part I Examination. It is required, however, that each candidate eligible to take Part II Examination bring to the place of examination, a duplicate list of Hospital Admissions as submitted with his or her application. This change in requirements is not retroactive and therefore applies to candidates making application for the 1961 examinations."

It has also been resolved by members of the Board that Applications for Appraisal of Incomplete Training will no longer be accepted for review by the Residency Review Committee.

Detailed information may be obtained from Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

Deaths

R. K. McINTOSH, M.D.
1913-1960

R. K. McIntosh, M.D., Tahlequah physician, died May 29, 1960.

Born in Bennington, Oklahoma in 1913, Doctor McIntosh graduated from the University of Oklahoma School of Medicine in 1937. After taking his internship at the Good Samaritan Hospital in Portland, Oregon, he established his practice in Tahlequah.

During World War II, he served three and one-half years in the U.S. Army Medical Corps. He was selected as the "Outstanding Citizen of Tahlequah" for 1959-60.

EMORY S. CROW, M.D.
1878-1960

Emory S. Crow, M.D., pioneer Olustee physician and Jackson county's oldest practicing physician, died in Altus, June 1, 1960.

Born in 1878 in Clarksville, Georgia, Doctor Crow graduated from the University of Georgia Medical School in 1902. Later that year, he established his practice in the Carmel community in Jackson county. He moved to Olustee in 1906 where he practiced for 54 years.

Doctor Crow had been honored twice by the Oklahoma State Medical Association for his years of service to the medical profession. In 1951, he was made a Life Member of the association and in 1952 he was awarded a 50 Year Pin.

Coming Meetings

ROCKY MOUNTAIN CANCER CONFERENCE

July 20, 21, 1960 — **Denver Hilton Hotel**
Denver, Colorado

The 14th Annual Rocky Mountain Cancer Conference will be held at the Denver Hilton Hotel in Denver, July 20, 21, 1960. Details may be obtained from the Rocky Mountain Cancer Conference, 835 Republic Building, Denver 2, Colorado.

DERMATOLOGY for GENERAL PRACTITIONERS

July 21-23, 1960 — **Denver, Colorado**

A postgraduate course in Dermatology for General Practitioners will be offered by the Office of Postgraduate Medical Education, University of Colorado Medical Center, July 21-23, 1960 in Denver. Details may be obtained by writing to the postgraduate office, 4200 East Ninth Avenue, Denver 20, Colorado.

THE INTERNAL MEDICAL AUDIT

August 10, 11, 12, 1960 — **Denver, Colorado**

The office of Postgraduate Medical Education, University of Colorado Medical Center in Denver will offer this three-day postgraduate course, the first of its kind, in response to the increasing interest in the Medical Audit. Guest speakers, who are closely associated with the mechanics of the medical audit programs will discuss many practical and beneficial aspects of this new and rapidly expanding field.

Further information is available by writing to C. Wesley Eisele, M.D., Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

9th Western Cardiac Conference

August 15-20, 1960 — **Denver, Colorado**

The 9th Western Cardiac Conference will be held in Denver, Colorado, August 15-20, 1960. Ten out-of-state speakers have accepted invitations to speak for the three-day session. Meetings will be held in Phipps Auditorium. Further information may be obtained from Colorado Heart Association, 1636 Logan Street, Denver 3, Colorado.

POSTGRADUATE COURSE IN PEDIATRICS

The University of Colorado School of Medicine

September 1-6, 1960 — **The Stanley Hotel**
Estes Park, Colorado

The Department of Pediatrics and the Office of Postgraduate Medical Education, University of Colorado School of Medicine will present a Course in Pediatrics at the Stanley Hotel, Estes Park, Colorado, September 1-6, 1960.

SOUTHERN TRUDEAU SOCIETY and SOUTHERN TUBERCULOSIS CONFERENCE

September 14, 15, 16, 1960 — **Hotel Francis Marion**
Charleston, South Carolina

The 1960 Annual Meeting of the Southern Trudeau Society and the Southern Tuberculosis Conference will be held on September 14, 15, and 16, 1960 at the Hotel Francis Marion, in Charleston, South Carolina. Information may be obtained from Judson M. Allred, Jr., Secretary-Treasurer, Southern Tuberculosis Conference, P.O. Box 9865, Northside Station, Jackson, Mississippi.

FOURTH NATIONAL CANCER CONFERENCE

September 13-15, 1960 — **Minneapolis, Minnesota**

The Fourth National Cancer Conference will be held September 13-15, 1960 in Minneapolis, Minnesota. Further information may be obtained by writing to Roald N. Grant, M.D., Coordinator, American Cancer Society, Inc., Medical Affairs Department, 521 West 57th Street, New York 19, New York.

6th INTERNATIONAL CONGRESS OF INTERNAL MEDICINE

August 24-27, 1960 — **Basle, Switzerland**

The 6th International Congress of Internal Medicine will convene in Basle, Switzerland, August 24-27, 1960. Simultaneous translation for the principal speakers will be given in German, French and English. Programs and registration forms are available from the 6th International Congress of Internal Medicine, Steinentorstrasse 13, Basle 10, Switzerland.

Auxiliary News

Flashes from National

"The A.M.A. Auxiliary Convention proved stimulating in coverage and efficiency," Mrs. Virgil Ray Forester, our returning State President, reports.

Changes follow which many County Presidents should note: The name of the committee on Paramedical Careers Recruitment has been changed to Health Careers. (Most Auxiliary members will be in complete agreement; the former name not only sounded a bit formidable, but necessitated a great many explanations for most of us.)

A new committee on Rural Health has been added at the National level. This change is also met with definite approval; Auxiliary members have long recognized the importance of rural health problems, consistently participating in rural health conferences. Mrs. John M. Chenault, whom many of you met at our State Convention, has been appointed chairman of the newly-organized committee. From Decatur, Alabama, Mrs. Chenault is President of the Woman's Auxiliary to the Southern Medical Association this year.

Mrs. Neil Woodward, Oklahoma City, National Civil Defense Chairman, and members of her committee presented to the convention "Operation Home Preparedness." Velma was elected to the 1961 Nominating Committee of National, further adding to her list of laurels and further justifying our pride in her as a member and as a wonderful person.

Mrs. Forester and Mrs. Pat Fite, Sr., Muskogee (who is our State President-Elect), presented two Sooner Satellites to the convention as indicative of the progress of our Oklahoma organization. Under the expert guidance and launching ability of Mrs. Cliffort M. Bassett the past year, the satellites represent our progress and indicate the future interest in new horizons.

In addition to Mrs. Forester, state members attending the convention as delegates were: Mrs. Fite; Mrs. R. Q. Goodwin of Oklahoma City; Mrs. Walter E. Brown and Mrs. Ray M. Wadsworth of Tulsa; and Mrs. M. E. England of Woodward, who was an alternate delegate. The Auxiliary wishes to thank these members for representing us at National.

Auxiliary Ties

For the information of new members, or those not so new members who may not be aware of our history, we present the following questions: "What is the A.M.A. Auxiliary? Why this pride in a national organization that sometimes seems remote from our state and county groups?"

Actually, the very first Medical Auxiliary was formed in Shawnee on May 15, 1907. (Be sure to see the minutes book in the foyer of the Oklahoma State Medical Building next time you are there.) This original organization functioned actively for eight years. In the meantime, in 1910 a county in Minnesota and one in South Dakota were organized; and Texas formed an auxiliary to their State Medical Association in 1918.

The Texas State Auxiliary presented in 1922 the following resolution to the House of Delegates of the A.M.A.:

> "The Woman's Auxiliary to the State Medical Association of Texas respectfully requests the approval of a movement to organize a Woman's Auxiliary to the American Medical Association, the object of which shall be, 'To extend the aims of the medical profession through the wives of doctors to the various women's organizations which look to the advancement in health and education, to assist in entertainment at all medical conventions

(Continued on Page 555)



Cartoon idea by pharmacist Emil Magdalener

Many of you may have seen a recent cartoon depicting a midnight scene in front of a pharmacy. A woman is pounding on the door and the pharmacist is leaning out the window of his apartment over the store. "Open up," shouts the woman. "My husband is sick and I need a stamp so I can send this prescription to the mail order house."

The drug that always fails is the drug that isn't there

Far-fetched? Perhaps, but there are those who would have us believe that our present system of drug distribution is inefficient and costly, and should be replaced by presumably more efficient and cheaper centralized or bureaucratic methods. Disregarding the probable political philosophy behind these suggestions, consider what a marvelously intricate and efficient system of drug distribution we have in this country. • From the laboratories of the manufacturers comes a steady stream of new and better drugs for your patients. Warehoused and stocked by drug wholesalers, these products are available in over 53,000 pharmacies scattered across the length and breadth of our land. And woe to the pharmacist who hasn't been provided with yesterday's laboratory discovery for your use in treating a patient today. • The economists speak of "utility of time" and "utility of place." We simply say that you can confidently prescribe *what* you choose, *when* it is needed, *wherever* your patient may be.

This message is brought to you by the producers of prescription drugs as a service to the medical profession. For additional information, please write Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D.C.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association, July, 1935

OFFICERS OF COUNTY SOCIETIES, 1935

COUNTY	PRESIDENT	SECRETARY
Adair		E. P. Green, Westville
Alfalfa	J. P. Bishop, Aline	L. T. Lancaster, Cherokee
Atoka-Coal	J. D. Fulton, Atoka	C. C. Gardner, Atoka
Beckham	P. J. DeVanney, Sayre	C. F. Jones, Erick
Blaine	A. K. Cox, Watonga	T. A. Hill, Watonga
Bryan	C. G. Price, Durant	Jas. L. Shuler, Durant
Caddo	Odis A. Cook, Apache	P. H. Anderson, Anadarko
Canadian		
Carter	R. C. Sullivan, Ardmore	L. C. Veazey, Ardmore
Cherokee	P. H. Medearis, Tahlequah	R. M. Williams, Tahlequah
Choctaw	W. N. John, Hugo	E. A. Johnson, Hugo
Cleveland	Arthur Brake, Norman	J. L. Haddock, Jr., Norman
Coal (see Atoka)		
Comanche	O. L. Parsons, Lawton	E. P. Hathaway, Lawton
Cotton	M. A. Jones, Walters	Mollie F. Scism, Walters
Craig	A. W. Herron, Vinita	F. T. Gastineau, Vinita
Creek	O. H. Cowart, Bristow	J. Clay Williams, Bristow
Custer	J. T. Frizzell, Clinton	C. Doler, Clinton
Garfield		John R. Walker, Enid
Garvin	E. F. Taylor, Maysville	John R. Callaway, Pauls Valley
Grady	W. J. Blaze, Chickasha	Oscar S. Pyle, Chickasha
Grant	I. V. Harris, Medford	E. E. Lawson, Medford
Greer	E. L. Pearson, Mangum	J. B. Hollis, Mangum
Harmon	James E. Jones, Hollis	Russell H. Lynch, Hollis
Haskell	J. C. Rumley, Stigler	N. K. Williams, McCurtain
Hughes	A. L. Davenport, Holdenville	G. W. Diggs, Wetumka
Jackson	Jesse Bird, Eldorado	E. W. Mabry, Altus
Jefferson	C. M. Maupin, Waurika	D. B. Collins, Waurika
Kay	M. S. White, Blackwell	D. M. Gordon, Ponca City
Kingfisher		
Kiowa	J. W. Finch, Sentinel	J. P. Braun, Hobart
Latimer		
LeFlore	W. M. Duff, Braden	Harrell Hardy, Poteau
Lincoln	Ned Burleson, Prague	J. S. Rollins, Prague
Logan	P. B. Gardner, Marshall	R. F. Ringrose, Guthrie
Marshall	P. F. Robinson, Madill	J. H. Veasey, Madill
Mayes	L. C. White, Adair	W. J. Whitaker, Pryor
McClain	B. W. Slover, Blanchard	R. L. Royster, Purcell
McCurtain		
McIntosh		
Murray	F. E. Sadler, Sulphur	Howson Bailey, Sulphur
Muskogee	J. G. Rafter, Muskogee	S. D. Neely, Muskogee
Noble		
Nowata	J. P. Sudderth, Nowata	H. M. Prentiss, Nowata
Okfuskee	J. A. Kennedy, Okemah	C. M. Bloss, Okemah
Oklahoma	Rex Bolend, Oklahoma City	Bert F. Keltz, Oklahoma City
Okmulgee	J. A. Kilpatrick, Henryetta	M. B. Glismann, Okmulgee
Osage		M. E. Rust, Pawhuska

Ottawa	A. M. Cooter, Miami	J. W. Craig, Miami
Pawnee	R. L. Browning, Pawnee	E. W. Lehew, Pawnee
Payne	L. R. Wilhite, Perkins	John F. Martin, Stillwater
Pittsburg	F. T. Bartheld, McAlester	L. C. Kuyrkendall, McAlester
Pontotoc	J. A. Rutledge, Ada	A. F. Dean, Ada
Pottawatomie	H. E. Hughes, Shawnee	H. G. Campbell, Shawnee
Pushmataha	H. C. Johnson, Antlers	E. S. Patterson, Antlers
Rogers	F. A. Anderson, Claremore	W. A. Howard, Chelsea
Seminole	C. C. Whittle, Wewoka	A. N. Deaton, Wewoka
Stephens	W. Z. McLain, Marlow	D. Long, Duncan
Texas	W. J. Risen, Hooker	R. B. Hayes, Guymon
Tillman	J. D. Osborn, Jr., Frederick	J. C. Reynolds, Frederick
Tulsa	R. M. Shepard, Tulsa	David V. Hudson, Tulsa
Wagoner	R. S. Bates, Wagoner	John D. Leonard, Wagoner
Washington	J. G. Smith, Bartlesville	J. V. Athey, Bartlesville
Washita	Jas. F. McMurray, Sentinel	E. K. Copeland, Cordell
Woods	I. F. Stephenson, Alva	O. E. Templin, Alva
Woodward	D. W. Darwin, Woodward	C. W. Tedrowe, Woodward

NOTE: Corrections and additions to the above list will be cheerfully accepted.

AUXILIARY NEWS

(Continued from Page 552)

and to promote acquaintanceship among doctors' families so that closer fellowship may exist'."

Our own Oklahoma group was reorganized in 1926; but in actuality, for 38 years nationally, members of the A.M.A. auxiliary have been constantly and conscientiously striving toward extended fulfillment of these basic aims in the initial petition for organization.

From time to time we will further familiarize readers with our National organization. Until that time, we urge you to start or to renew your subscription to *The Bulletin,* storehouse of information for every Auxiliary member. (Have you read "The Doctor's Wife as an Individual," by Vincent P. Mahoney, M.D.—in the last issue?) Mrs. Lawrence Thompson, Jr., 4047 South Richmond, Tulsa, is State Bulletin Chairman, in case your group does not have a local chairman. While most auxiliaries have no summer meetings, local interest can still be maintained through cards, telephone calls, or word-of-mouth reminders of the importance of our continued contributions to A.M.E.F. If you have no local chairman, send your memorials and contributions to Mrs. F. H. McGregor, 928 N.E. 15th, Oklahoma City.

IF I WERE 21 AGAIN

(Continued from Page 533)

The promissory notes and receipts were written from 1,000 to 1,500 years before the birth of Christ. Even then, human beings required permanent records to compel compliance with agreements or contracts. They are still needed in 1960.

Therefore, I would, at my second 21, rely again for success upon the old and tested values of being honest, reliable, friendly, and true:

Truth never dies, The ages come and go,
The mountains wear away, the stars retire.
Destruction lays earth's mighty cities low;
And empires, states and dynasties expire;
But caught and handed onward by the wise,
Truth never dies.

At 21 again, I would still stake my future on the philosophy of the Prophet Micah and the Master Teacher, respectively: "What doth the Lord require of thee, O man, except to do justly, to love mercy, and to walk humbly with thy God." And, "He who would be greatest among you, let him be the servant."

PHYSICIAN PLACEMENT

Dermatology

Lealand L. Clark, M.D., 200 1st St., S.W., Rochester, Minnesota; age 28; married; Columbia University College Physicians and Surgeons 1956; Board eligible July 1960; Fellows' Assoc., Mayo Foundation; Military service will be completed Sept. 1962; desires group or associate practice; available July 1960.

Joseph William Pidgeon, M.D., 5333 Littlebow Road, Rolling Hills, California; age 41; married; George Washington University 1951; Board eligible June 1960; Active Air Force Reserves; available July 1960.

General Practice

Johnny Bill Delashaw, U.S.P.H.S. Hospital, Wyman Park Drive and 31st Street, Baltimore 11, Maryland, age 27, married, University of Texas Medical Branch, 1959, available July 1960.

Robert Goodman, M.D., 63 Old Gate Lane, Powers Lake, North Dakota; age 56; married; University of Manitoba, 1930; no military obligations; available anytime 1960.

John William Kennard, M.D., Blowing Rock Hospital, Blowing Rock, North Carolina; married; age 29; Bowman Gray School of Medicine, 1956; veteran; available August 29, 1960.

Carle H. Schroff, M.D., 3811 State Line, Kansas City 11, Missouri: Age 31; married; University of Kansas, 1959; veteran; available August, 1960.

Internal Medicine

Richard I. Hochman, M.D., 37, Badger Road, Annapolis, Maryland, 31, married, New York University, 1952, available October 1, 1960.

Edward John Hertko, M.D., 2117 S. 3rd Ave., Maywood, Illinois; age 30; married; University of Illinois, 1954; no military obligations; available October 1960.

Grant Gwinup, M.D., 1121 Maiden Lane, Ann Arbor, Michigan: Age 30; married; University of Colorado, 1956; Board eligible; specialty, endocrinology; veteran; desires group practice or academic position; available July 1, 1960.

Joseph Chester Maternowski, M.D., 319 Highlake, Ann Arbor, Michigan; age 35; married; St. Louis University, 1953; eligible board of Internal Medicine & Allergy; veteran; specialty, Internal Medicine & Allergy; available July 1, 1960.

Thomas Turner Walton, Jr., M.D., 7375 Churchill, Detroit, Michigan: Age 29; married; Baylor College of Medicine, 1955; Board eligible; veteran; specialty, internal medicine; desires group or associate practice; eligible, July 1961.

Locum Tenens

Harold W. Calhoon, M.D., Wesley Hospital, Oklahoma City. One year residency in Internal Medicine. Available July 1 to September 15th, 1960.

Arnold Giesbrecht, M.D., Hallock, Minnesota, age 34, married, graduate Winnipeg, Manitoba, 1957, prefers suburban or locality close to cities.

James D. Green, M.D., second year resident in Internal Medicine at St. John's Hospital, Tulsa, desires two weeks' tenure between now and July 1. Write to St. John's or call RIverside 3-3059.

(Name on Request), O.U. graduate 1956; M.D. from Washington University School of Medicine 1959; desires locum tenen in the Tulsa area from July 1, 1960 until middle of September, 1960. Address inquiries to Key H, The Journal, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

Charles L. Maimbourg, M.D., Campus Apartments No. 5, Elf Street, Durham, North Carolina; Oklahoma University School of Medicine 1958; desires General Practice and/or Anesthesia during first two or three weeks of July 1960.

Russell M. Preston, M.D., 476 San Juan, Oak Harbor, Washington, desires six month's work in General Practice between time of separation from military service to beginning of residency training, January-July, 1960.

Obstetrics and Gynecology

Edmond Michael Brophy, M.D., 1823 Portsmouth, Westchester Illinois; married; University of Illinois, 1946; Board eligible upon completion of practice requirements; no military obligations; available July, 1960.

William Edgar Carlisle, M.D., 634 E. Patton Ave., Montgomery, Alabama; age 29; married; Tulane University School of Medicine 1953; Jr. Fellow American College of Ob-Gyn; interested in associate or group practice; available July 1960.

Joseph William Herbert, M.D., 2701 N. Azelea St., Victoria, Texas; age 40; married; Southwestern Medical School, 1945; Fellow American College of Ob-Gyn; desires associate or solo practice; no military obligations; available March 1960.

David H. Holmes, M.D., 1017 Grovena Drive, St. Louis, Missouri, 37, married, Washington University, St. Louis, Veteran, available July 1, 1960.

Gerald R. Keilson, M.D., Medical Arts Building, Dallas, Texas, age 31, married, University of Texas, 1953, board qualified, veteran, available in July 1960.

Nejdat Mulla, M.D., 1110 Belmont Avenue, Youngstown, Ohio, age 36, married, University of Geneva, Switzerland, 1952, American College of OB-GYN, not eligible military service, available July 1, 1960.

Oklahoma physician; age 35; married; Medical College of Georgia, 1954; 3 years residency training Ob-Gyn; veteran; available in 30 days. Write Key "I", Oklahoma State Medical Association, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

Juan C. Ruiz, M.D., 350 Park Ave., Lexington, Kentucky; age 36; married; University of San Marcos Medical School 1952; no military obligations; available July 1, 1960.

Robert B. Williams, M.D., 27 Normandy Road, Auburndale 66, Massachusetts; married; age 30; Tulane University, 1955; board certified; available July 1, 1961.

Pediatrics

H. M. McClintock, M.D., 5712 St. John St., Kansas City, Missouri, 29, married, Baylor University, 1955, veteran, available December 1960.

Ophthalmology

Howard A. Dinsdale, M.D., 4624 Briarfield Road, Columbia, South Carolina; age 29; married; University of Nebraska 1954; Board Certified; available October 11, 1960.

Ira H. Kaufman, 75 S. Middle Neck Road, Great Neck, New York; age 31; married; Cornell University 1953; Board certified; desires group or associate practice; available summer 1960.

Orthopedics

Newsom Stool, M.D., c/o Mayo Clinic, Rochester, Minnesota; age 30; married; Baylor University 1953; Board eligible; available July 1960.

Radiology

Wendell M. Burns, M.D., 1158 Belvoir Avenue, Dayton, Ohio: Age 34; married; University of Louisville, 1954; Board Certified; veteran; available September 1, 1960.

Surgery

(Name on Request) 32 years old, married, Tulane, 1952, veteran, board eligible.

Clarence I. Britt, M.D., 1650 Neil Avenue, Apt 15, Columbus, Ohio; age 32; married; Ohio University College of Medicine, 1951; American Board of Surgery 1959; eligible American Board of Thoracic Surgery, 1960; inactive reserve; available July 1960.

Delbert H. McGinnis, M.D., Box 75, Clinton-Sherman AFB, Oklahoma; age 28; married; end military obligation July 3, 1960; interested in general practice: available July 4, 1960.

Duane M. Clement, M.D., 310 Bates, Boulder, Colorado; age 39; married; University of Michigan 1944; Board certified; member F. A. Coller Surgical Society; desires group or associate practice; available April 1960.

Alice F. Gambill, M.D., 1601 Clover Lane, Fort Worth, Texas; age 36; married; Oklahoma University School of Medicine 1949; member AAGP; desires general or group practice; available May 1960.

Jack T. Rush, M.D., Colorado State Hospital, Pueblo, Colorado: Age 49; married; University of Colorado, 1939; Board certified; veteran; available immediately.

Donal Wray Steph, M.D., 8519 Craighill, Dallas, Texas; age 30; married; Southwestern Medical School 1953; board eligible July 1960; available July 1960.

Clinton K. Higgins, M.D., 215 Bacon Ave., Naval Base, Norfolk, Virginia; age 62; married; Washington University 1927; Board Certified; desires administration, college health physician, group association; available May 1960.

Urology

Alex Grossman, M.D., V.A. Center, Temple, Texas, 42, married, University of Texas, 1951, board certified, veteran, available now.

John A. Malley, M.D., 3404 Sheffield Ave., Los Angeles, California; age 32; married; Marquette University 1955; Board certified; no military obligations; available July 1, 1960.

MISCELLANEOUS ADVERTISEMENTS

FOR LEASE OR RENT: Completely equipped for general practice, 3-room clinic, 26 S.W. 25th, Oklahoma City. Seven years old. Air conditioned, central heat. Will rent with or without furniture and equipment. Call CE 5-0725 or PE 2-1627, Oklahoma City.

WANTED: Young General Practitioner, without military obligations, to become partner in established clinic and hospital practice. $1000.00 per month to start. Contact Neumann-Ottis Clinic, Okarche, Oklahoma.

PHYSICIAN for Ramona, Oklahoma, growing ranch-farm community, over 1,000 trade area, 35 miles from Tulsa. Will build. Bring family, visit. Merle Smith, President, Ramona Medical Building.

BOARD CERTIFIED or board eligible internist and pediatrician are needed for the Broadway Clinic, Shawnee, Oklahoma; $12,000 per year to start, with a future partnership available. Shawnee has a population of approximately 30,000, and is located within 40 miles of Oklahoma City, and the University of Oklahoma Medical Center. The Clinic owns a 40-bed, modern, air-conditioned hospital which is located adjacent to the clinic building.

WANTED: Internist to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

FOR RENT: Office space for two doctors. New air-conditioned clinic building. 1714 S. Midwest Blvd., Midwest City, Okla. Complete maintenance. Plenty of free parking for patients. Other two suites occupied by general practitioners. PE 2-4589.

WANTED: Surgeon to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

FOR SALE OR LEASE: 100 foot corner. 3205 N.W. 23rd St. Ideal for doctors' office and clinic. Brick house, 11 rooms, one floor. Parking available for 50 cars. Call WI 3-5797—if no answer write R. W. Gimpel, 3144 N.W. 22nd St.

FOR SALE: Examining room furniture and equipment. Call WI 6-1883, after 5:00 p.m.

Proceedings . . .

(Continued from Page 546)

The next resolution to be presented was prepared by the Pittsburg County Medical Society.

Resolution Number 2

Subject: Protest of Increase in First Class Postal Rates.

WHEREAS, The Post Office Department of the United States has been operating with a deficit each year, and

WHEREAS, The Administrative Department of our Government has made a request for increase in postal rates to help to offset this deficit, and

WHEREAS, every physician in the State of Oklahoma and the United States is beseiged daily by from thirty to forty pieces of second, third and fourth class (throw-away) mail, consisting of advertising material published by various manufacturers, distributors and jobbers, and

WHEREAS, this same condition exists not only with physicians, but with many other professions and businesses, and

WHEREAS, Since it is impossible for the recipients of this mail to survey and read this volume of mail, there is a great loss of raw material, time and effort of the physician and businessman and their employees, and a tremendous loss of time in handling this type of mail by the postal employees, and

WHEREAS, Our Federal Government makes it profitable for manufacturers and other businesses to promote and provide extensive advertising material which is being carried through our mails at these sub-standard rates by allowing them tremendous deductions from their gross income for advertising, and

WHEREAS, By so doing, the Federal Government is subsidizing the advertising program of these businesses by handling this product at a deficit to the Post Office Department, thus, the taxpayer himself is subsidizing this advertising program by having to pay the deficit in the Department caused by the handling of this material.

BE IT FURTHER RESOLVED, That the Oklahoma State Medical Association urge an increase in postal rates on all sub-standard mail. In so doing, it will:

1. Markedly increase the revenue of the Post Office Department and conserve raw material; and

2. Reduce the load carried by that Department, enabling a reduction in employees required to handle this mail, thus reducing the payroll of the Post Office Department; and

3. Increase income to the Federal Government by reducing substantial deductions allowed for advertis-

ing and increase corporate tax, which can then be used to pay for the remaining deficit in the Post Office Department, and

BE IT FURTHER RESOLVED, That a copy of this Resolution be forwarded to the President of the United States, all members of Congress from Oklahoma, and to the appropriate committees in Congress.

PITTSBURG COUNTY MEDICAL SOCIETY
(Signed) C. K. Holland, M.D., President
(Signed) H. C. Wheeler, M.D., Secretary-Treasurer

Doctor Mohler reported that the Resolutions Committee considered the resolution from the Pittsburg County Medical Society concerning increase in postal rates. After careful consideration it was the opinion of the committee that this resolution goes beyond the bounds of the Oklahoma State Medical Association and the committee does not feel that this subject is germane to the Association and therefore recommends that it not be approved. This committee is in sympathy with the intent of the resolution but does suggest that this be an activity of the individual, and so moved. The motion was duly seconded and carried.

The next resolution to be presented was prepared by the Oklahoma County Medical Society.

Resolution Number 3

Opposition to Compulsory Social Security for Physicians.

WHEREAS this county medical society and the Oklahoma State Medical Association repeatedly have opposed compulsory inclusion of physicians under the Social Security system; and

WHEREAS Secretary Fleming has seen fit to seek inclusion of physicians under the compulsory system while offering voluntary inclusion to the employees of non-profit organizations; and

WHEREAS the misleading propaganda of the mysteriously financed Physicians Forum fails to impress our members; now therefore be it

RESOLVED that the Oklahoma County Medical Society in regular session April 26, 1960, reiterates its opposition to any legislative proposal calling for the inclusion of physicians under compulsory Social Security; and be it further

RESOLVED that the delegates of this society to the Oklahoma State Medical Association call on the House of Delegates of that organization for a similar expression; and be it

RESOLVED that copies of this resolution be sent to our Congressmen, Secretary Arthur Fleming, Vice-President Richard Nixon, and Chairman Wilbur D. Mills of the House Ways and Means Committee.

Doctor Mohler reported that the Resolutions Committee endorses and recommends the resolution from Oklahoma County Medical Society concerning social security, and so moved. The motion was duly seconded and carried.

The next resolution to be presented was prepared by the Oklahoma County Medical Society.

Resolution Number 4

Opposition to Forand-Type Legislation

WHEREAS, we are informed the Ways and Means Committee of the House of Representatives of the United States Congress has under study currently House Bill 4700, known as the Forand Bill, and

WHEREAS, the Forand Bill or any similar type legislation, if enacted by the Congress of the United States, will create costlier and inferior health care for beneficiaries of Social Security, the purported recipients of benefits proved therein, and

WHEREAS, the Forand Bill or similar legislation would be a major deviation from the cash-benefit concept of the Social Security system inasmuch as the Federal Government (1) would buy **service** rather than provide **cash** benefits, thereby covering millions of people with compulsory hospital and surgical insurance **whether they want or need it,** and (2) would curtail the right of citizens 65 years or older to spend their benefits as they want and need, and (3) would assume financial obligations with obvious inflationary effects and **would hurt, not help, the aged** who depend on pensions and other fixed income for security, and

WHEREAS, the Forand Bill or similar legislation would send payroll taxes higher with continued reduction in paychecks, and

WHEREAS, the Forand Bill or similar legislation would restrict the aged in their choice of hospital and physician because only those physicians, hospitals and nursing homes entering into agreements with the Federal Government would participate, and

WHEREAS, the Forand Bill or similar legislation would not help the aged with the lowest incomes because most of those on public assistance are not eligible for Social Security benefits, and

WHEREAS, tremendous progress through expanded coverage and broader protection is being made available currently through the numerous companies of the Health Insurance Association of America which reports that 60% of the Nation's senior citizens who need and want health insurance will be covered by the end of 1960, 75% by 1965 and 90% by 1970, and

WHEREAS, great progress is also being made in community care of the aged where it rightly belongs. Such care should not be the concern of the Federal Government which can give back only what it has already taken away from the people after the customary inflation producing federal handling, interest and debt producing costs are extracted, and

WHEREAS, the Forand Bill or similar legislation is socialized medicine although temporarily limited in scope, and

WHEREAS, the Forand Bill or similar legislation would severely handicap the professional relationship between the doctor of medicine and his patient, which is the basis of all effective health care; therefore

BE IT RESOLVED, that the members of the Oklahoma County Medical Society in regular meeting this 26th day of April, 1960 affirm the above and state unequivocally that we believe the Forand Bill or any similar type legislation is totally unacceptable because the Forand Bill or any similar type legislation would result in poor health care for citizens 65 years or older because medical care is not amenable to production line techniques and the medical needs of the aged are subject to numerous variations and any workable system of care must be tailored to meet them.

Doctor Mohler reported that the Resolutions Committee considered the resolution from Oklahoma County Medical Society concerning Forand-type legislation. The committee was confronted with a situation that could not be resolved in the committee to the extent that the House of Delegates accepted the Council on Public Policy report. In view of the fact that there is a difference in intent between the council report and the Resolutions Committee, it is the recommendation of the committee that they adopt the resolution from Oklahoma County Medical Society concerning Forand-type legislation which will supercede any other action that the House of Delegates has taken with regard to council reports, and so moved. The motion was duly seconded and carried.

The next resolution to be presented was prepared by the Tulsa County Medical Society.

Resolution Number 5

WHEREAS, the children and youth of the State of Oklahoma need proper facilities for the growth and development to full potential;

WHEREAS, experts in the study of population trends and future educational needs have determined that state college enrollments will double by the year 1970:

WHEREAS, the Mental Health authorities are faced with the ever increasing burden of providing facilities for care and treatment of mentally retarded, multiple handicapped children;

WHEREAS, the medical profession is routinely confronted with and recognizes the emergency arising from the serious lack of state facilities in these respects;

WHEREAS, the Twenty-Seventh Legislature of the State of Oklahoma recognizing the need and responsibility for providing means to alleviate these conditions, did adopt House Joint Resolution Number 517, in order to refer to the people of this state a proposed amendment to ARTICLE X of the Constitution of Oklahoma, providing for an amendment to be known as Section 34 to be submitted to the people, authorizing the Legislature to enact laws whereby the State may become indebted in an amount not to exceed $35,500,000. To provide capital funds for the Institutions of Higher education of the State of Oklahoma, and provide funds to construct and equip a School and Hospital for mentally retarded children in Northeastern Oklahoma;

NOW, THEREFORE, BE IT RESOLVED, that the Oklahoma State Medical Association, at regular meeting May 1, 1960, acknowledging and recognizing the necessity of enactment of such measures for the public good, hereby approves and urges adoption of the proposed Constitutional Amendment to be presented to the people as State Question Number 393 at the election to be held July 5, 1960.

TULSA COUNTY MEDICAL SOCIETY

Doctor Mohler reported that the Resolutions Committee recommends disapproval of the Tulsa County Medical Society resolution on the basis that it encourages deficit spending. The committee is in sympathy with the improvement of mental health care and higher educational institutions, and so moved. The motion was duly seconded and passed.

The next resolution to be presented was prepared by the Tulsa County Delegation.

Resolution Number 6

WHEREAS, It has become apparent that the medical doctors of America and their organizations are not exerting the effective influence on local, state and national political affairs which it is their right and obligation to exert, and

WHEREAS, these problems—both of a medical nature and otherwise—are of vital concern to the nation and its citizens, requiring a concerted attempt at effective solution,

NOW THEREFORE, Be It Resolved That: The Oklahoma State Medical Association encourage its members to take a greater interest in public affairs, looking toward the ultimate goal of developing a practical political program consistent with the medical profession's role of leadership in the United States, and

BE IT FURTHER RESOLVED: That the individual members of the Oklahoma State Medical Association, as private citizens, shall take a more active part in the local, state and national politics, endeavoring to select qualified candidates for office, regardless of party affiliation of such candidates; and that the individual members of the Association shall work toward the creation of policies which shall preserve representative government, free enterprise, fiscal solvency and the integrity of the dollar, and

BE IT FURTHER RESOLVED, That the component county medical societies of Oklahoma shall be encouraged to prosecute this program on the local level, making the discussion of political topics a part of the agenda of each meeting, such subjects to be considered on a par with other phases of business to be brought before the society, and

BE IT FURTHER RESOLVED: That a resolution embodying the same general concepts be presented at the next regular meeting of the House of Delegates of the American Medical Association with the recommendation that it be favorably considered.

Respectfully submitted by:
Tulsa County Delegation
Oklahoma State Medical Association

Doctor Mohler reported that the Resolutions Committee recommends approval of the resolution as amended. Changing the word "politics" to "government," and so moved. The motion was duly seconded and carried.

The next resolution to be presented was prepared by the Comanche-Cotton County Medical Society.

Resolution Number 7

WHEREAS, the "MEDICARE" program has been re-established; and

WHEREAS, the Oklahoma State Medical Association has no part in the operation of this program having cancelled its contract; and

WHEREAS, all questionable cases are being referred to Washington for adjudication because there is no Adjudication Committee of the Oklahoma State Medical Association to assist the fiscal agent in processing claims filed by members of the Oklahoma State Medical Association;

THEREFORE BE IT RESOLVED, that the Oklahoma State Medical Association re-negotiate its contract with the Federal Government in the operation of the MEDICARE PROGRAM and be it further resolved that the president of the Oklahoma State Medical Association appoint a committee of Doctors practicing in Tulsa to serve on the Adjudication Committee to assist the fiscal agent in processing claims filed by members of the Oklahoma State Medical Association.

Doctor Mohler reported that the Resolutions Committee recommended disapproval, and so moved. The motion was duly seconded and carried.

The next resolution to be presented was prepared by the Kay-Noble County Medical Society.

Resolution Number 8

WHEREAS, The School of Medicine, of the University of Oklahoma has need for scholarships for first and second year medical students if it is to be equal to other recognized medical schools; and

WHEREAS, There are some scholarships and loan funds available for third and fourth year students; and

WHEREAS, Some first and second year students who are needy, qualified and have the ability to make good doctors have difficulty in attending medical school; and

WHEREAS, the Kay-Noble County Medical Society desires to bring this matter to the attention of the House of Delegates of the Oklahoma State Medical Association at the annual 1960 meeting;

NOW THEREFORE BE IT RESOLVED, By unanimous consent and vote of the Kay-Noble County Medical Society at its regular meeting on this 12th day of April, 1960, that the House of Delegates of the Oklahoma State Medical Association, at its annual meeting for 1960 have requested to raise the dues of members $2.00 per year and that the funds raised by the increase in dues be allocated and designated as an annual scholarship fund for the first and second year students for the School of Medicine, University of Oklahoma.

BE IT FURTHER RESOLVED, That the House of Delegates be requested to provide rules and regulations for granting scholarships and that such rules place emphasis on need, qualifications and ability but that the primary emphasis be placed upon need of qualified applicants and students.

BE IT FURTHER RESOLVED, That the House of Delegates require that any scholarship granted shall be granted only to bonafide Oklahoma residents; that the fund be controlled and that scholarships be granted under the joint control and supervision of the Executive Council of the Oklahoma State Medical Association and the School of Medicine of the University of Oklahoma.

BE IT FURTHER RESOLVED, That the House of Delegates cause rules and regulations to be made which will allow one scholarship per year to one student per year based solely upon scholarship and ability if the Executive Council and the officers of the School of Medicine deem the individual to be exceptional and worthy; that if during any year the scholarships are not taken up by needy and qualified students the rules and regulations may allow the scholarships to be granted based upon scholarship and ability alone.

BE IT FURTHER RESOLVED, That the rules allow the Executive Council and officials of the School of Medicine to determine the allocation of scholarships between first and second year students.

BE IT FURTHER RESOLVED, That this resolution be presented to the House of Delegates of the Oklahoma State Medical Association at the annual 1960 meeting.

Passed by unanimous vote, this 12th day of April, 1960.

KAY-NOBLE COUNTY MEDICAL SOCIETY
By V. C. Merrifield, M.D., President

Attest:

Robert F. Morgan, M.D., Secretary

Doctor Mohler reported that the Resolutions Committee recommended disapproval of the resolution and submitted a substitute resolution to the effect that the subject of scholarship and loan funds for the first and second year medical students be referred to the Council on Professional Education for study and make a positive recommendation back to the House of Delegates at its next meeting, and so moved. The motion was duly seconded and passed.

Doctor W. G. Chestnut of Miami offered an additional resolution that the Craig-Ottawa County Medical Society be known as the Craig-Delaware-Ottawa County Medical Society contingent upon application for amalgamation from each county involved, and so moved.

The motion was duly seconded and carried.

Doctor Gallaher announced that the next order of business would be the election of officers, and he asked Doctor Alfred T. Baker to conduct the election.

Doctor Gallaher then announced the names of the Tellers: Thomas E. Rhea, M.D., Idabel; Virgil Ray Forester, M.D., Oklahoma City; and Ollie McBride, M.D., Ada.

The first office to be filled was that of President-Elect. Doctor Clinton Gallaher was nominated in the opening session. Doctor Baker called for further nominations. **Subsequently, a motion was made that nominations cease and Doctor Gallaher be elected by acclamation. The motion was duly seconded and carried.**

The next office to be elected was that of Vice-President. Doctor J. Hoyle Carlock with nominated in the opening session. Doctor Baker called for further nominations. **Subsequently, a motion was made that the nominations cease and Doctor Carlock be elected by acclamation. The motion was duly seconded and carried.**

Wilkie D. Hoover, M.D., of Tulsa, was re-elected to the office of Delegate to the American Medical Association, in the same manner as was Joe L. Duer, M.D., Woodward, for the office of Alternate Delegate to the American Medical Association.

The next office to be elected was that of Secretary-Treasurer. Doctor Johnny A. Blue, of Oklahoma City, was nominated in the opening session. Doctor Baker called for additional nominations and Doctor Charles E. Wilbanks of Tulsa nominated Doctor Mark R. Johnson of Oklahoma City. **A motion was made that nominations case. The motion was econded and upon being put to vote, the motion carried, and the nominations were closed.**

Doctor Baker announced that the vote for Secretary-Treasurer would be by ballot, and requested that the Tellers come forward.

Following the voting and the tabulating thereof, the Chair advised that Mark R. Johnson, M.D., Oklahoma City, was elected to the office of Secretary-Treasurer of the Oklahoma State Medical Association.

The next office to be elected was that of Speaker of the House. Marshall O. Hart, M.D., of Tulsa, was nominated in the opening session. Doctor Baker called for further nominations. **Subsequently, a motion was made that the nominations case and Doctor Hart be elected by acclamation. The motion was duly seconded and carried.**

The final office to be elected was that of Vice Speaker of the House. C. M. Hodgson, M.D., of Kingfisher was nominated in the opening session. Doctor Baker called for further nominations. **Subsequently a motion was made that the nominations cease and Doctor Hodgon be elected by acclamation. The motion was duly seconded and carried.**

The next order of business was the election of Councilors for Districts Number 2, 5, 8, 11, and 14. The Speaker pointed out that Ennis M. Gullatt, M.D., of Ada, from District No. 12, had been nominated to fill the unexpired term of William T. Gill, M.D., of Ada, until 1961; and that it would be necessary for District Number 3, to nominate a Councilor to fill the vacancy created by the election of C. M. Hodgson, M.D., to the office of Vice-Speaker of the House. James Petty, M.D., of Guthrie, was nominated.

This completed the nomination of Councilors. The following Councilors were elected by acclamation:

DISTRICT No.	2.	A. M. Evans, M.D. Perry G. B. Gathers, Jr., M.D., Stillwater
DISTRICT No.	3.	James Petty, M.D., Guthrie
DISTRICT No.	5.	Ross Deputy, M.D., Clinton C. Riley Strong, M.D., El Reno
DISTRICT No.	8.	Wendell Smith, M.D., Tulsa Earl M. Lusk, M.D., Tulsa
DISTRICT No.	11.	W. A. Hyde, M.D., Durant Thomas E. Rhea, M.D., Idabel
DISTRICT No.	12.	Ennis M. Gullatt, M.D., Ada
DISTRICT No.	14.	J. B. Hollis, M.D., Mangum R. R. Hannas, M.D., Sentinel

Doctor Gallaher asked the new officers to come to the front for introduction.

Doctor Gallaher then asked Doctor Marshall O. Hart to come to the podium and thereupon presented him with the gavel of the Speaker of the House.

The meeting of the House of Delegates was declared adjourned at 6:25 p.m.

Reported by Doris Lee George

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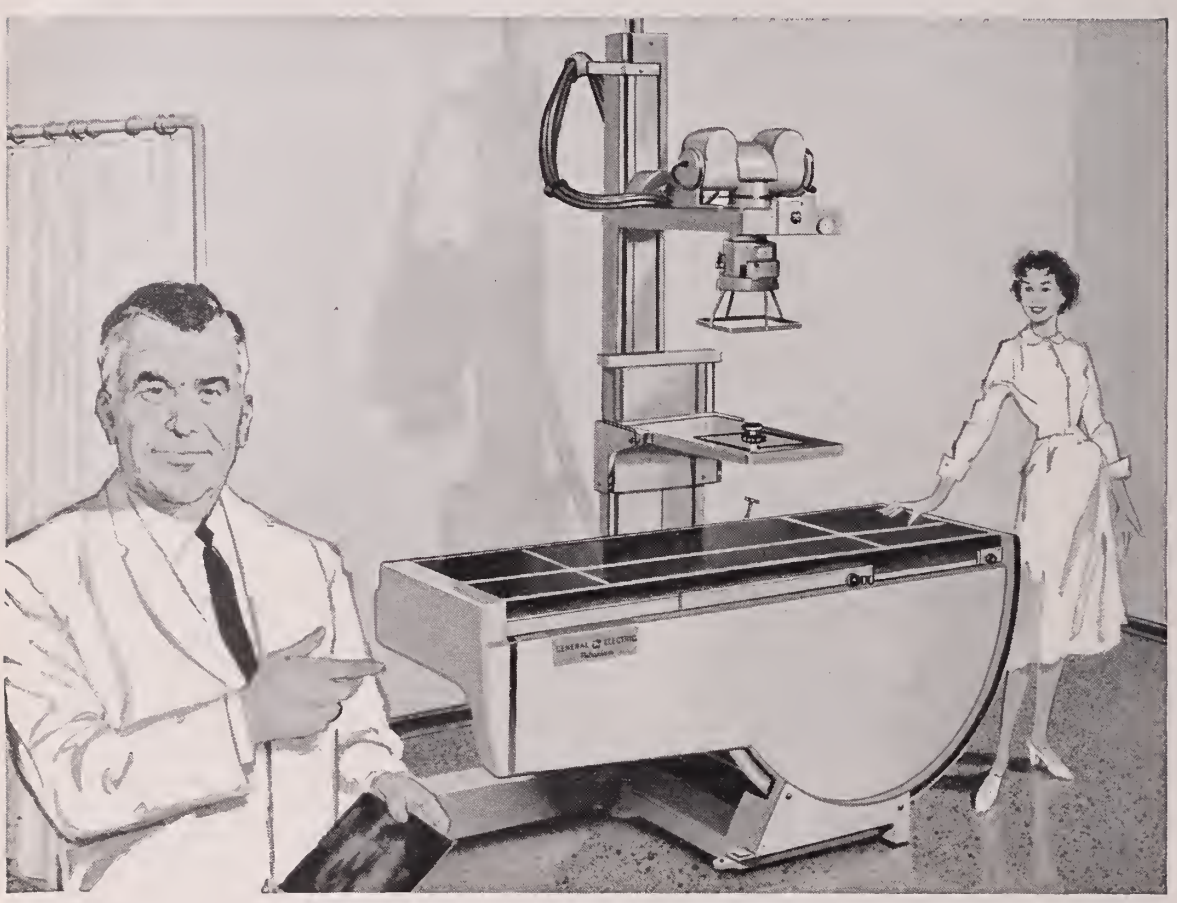
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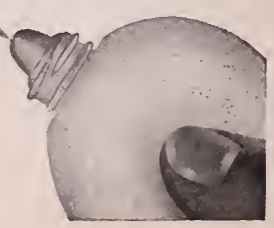
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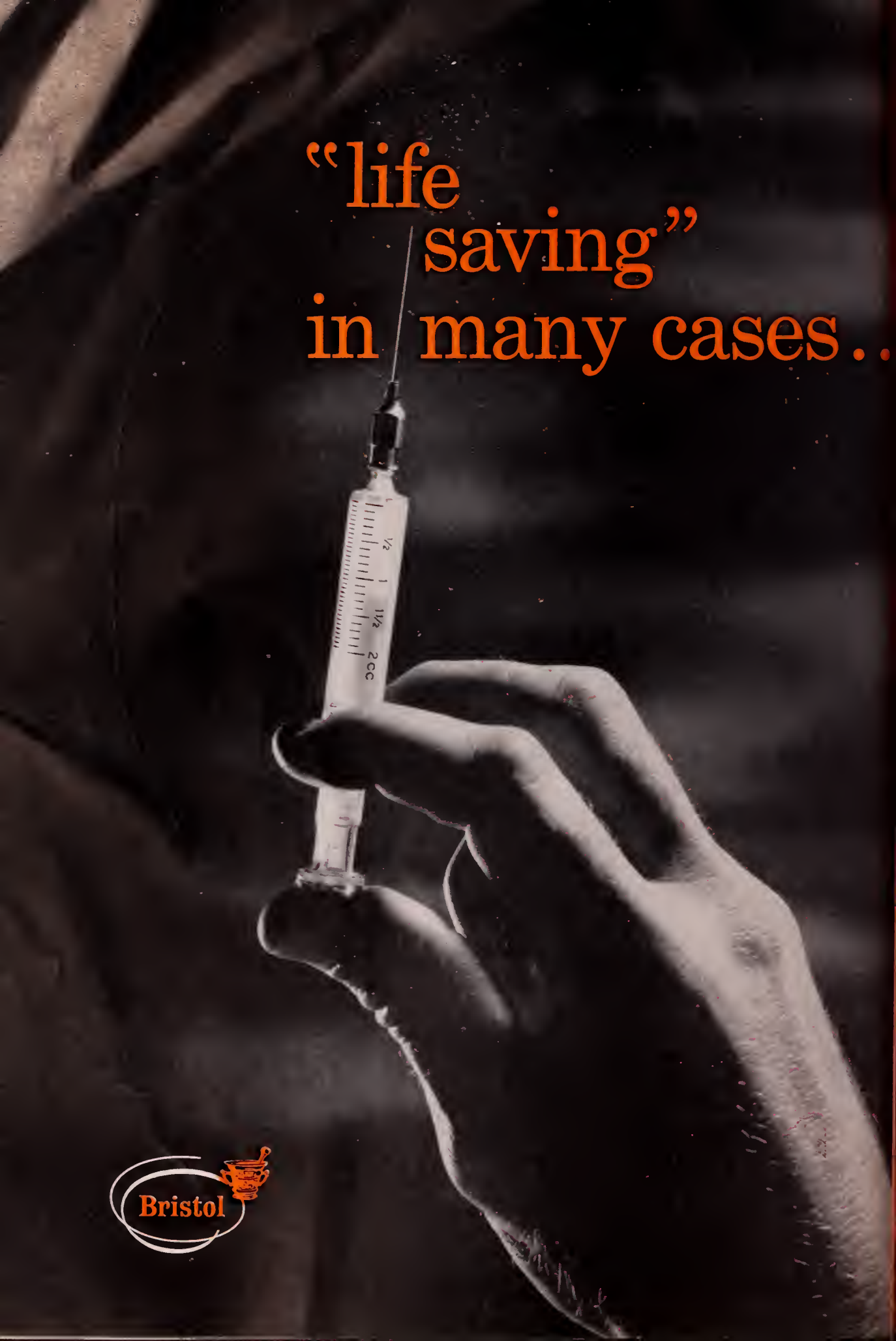
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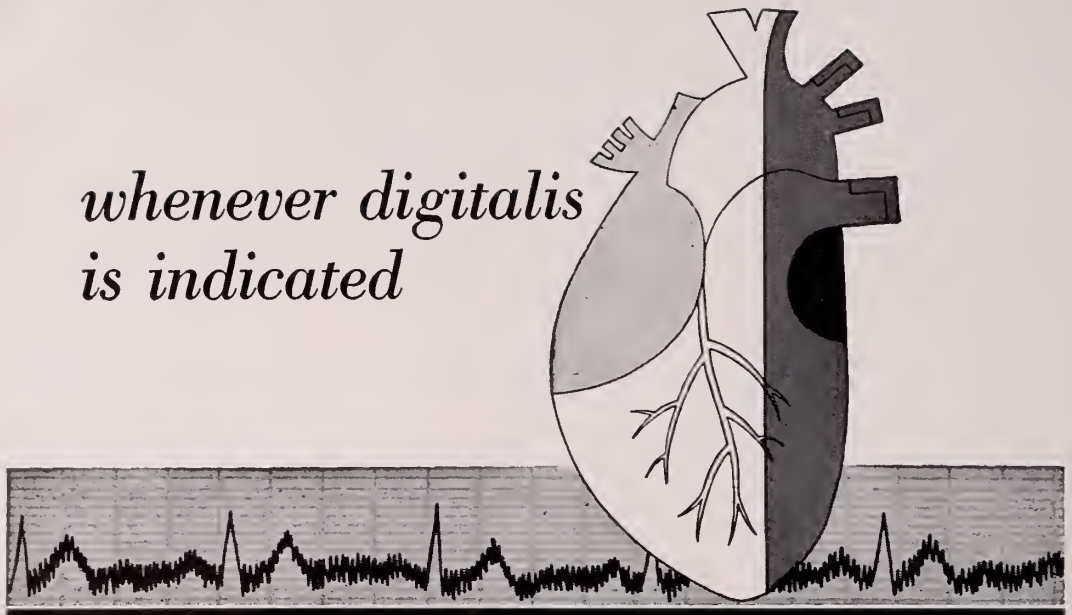
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REFERENCES: 1. Yow, E. M.: Practitioner 182:759, 1959. 2. Yow, M. D., and Womack, G. K.: Ann. N. Y. Acad. Sci. 76:363, 1958. 3. Bunn, P. A., Baltch, A., and Krajnyak, O.: Ibid. 76:109, 1958. 4. Council on Drugs, J.A.M.A. 172:699, 1960.

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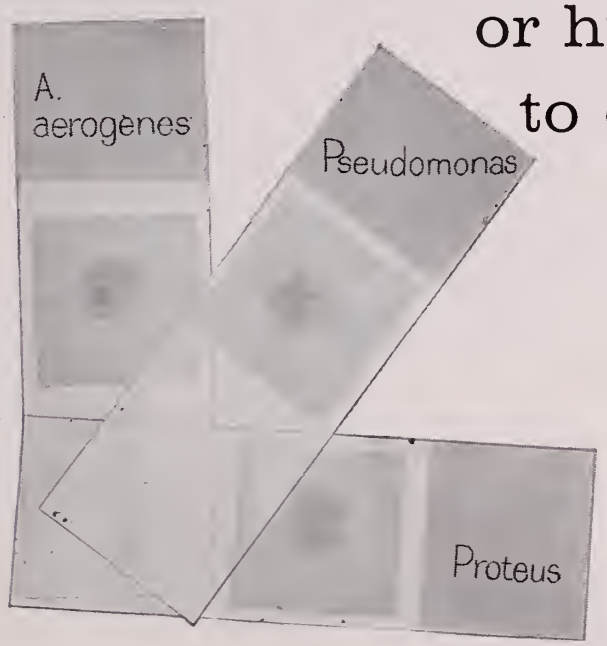
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1. Finland, M.; Hirsch, H. A., and Kunin, C. M.: Read at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 2. Hirsch, H. A.; Kunin, C. M., and Finland, M.: München. med. Wchnschr. To be published. 3. Roberts, M. S.; Seneca, H., and Lattimer, J. K.: Read at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 4. Vineyard, J. P.; Hogan, J., and Sanford, J. P.: Ibid.

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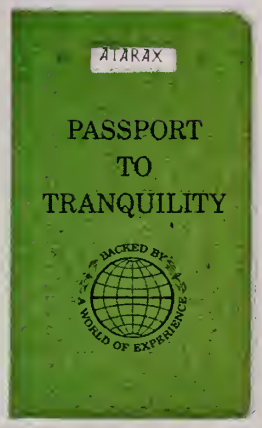
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IN ELDERLY PATIENTS well tolerated by debilitated patients	"...seems to be the agent of choice in patients suffering from removal disorientation, confusion, conversion hysteria and other psychoneurotic conditions occurring in old age." Smigel, J. O., et al.: J. Am. Geriatrics Soc. **7**:61 (Jan.) 1959.	Settel, E.: Am. Pract. & Digest Treat. **8**:1584 (Oct.) 1957. Negri, F.: Minerva med. **48**:607 (Feb. 21) 1957. Shalowitz, M.: Geriatrics **11**:312 (July) 1956.
IN ALLERGIC PATIENTS useful adjunctive therapy for asthma and dermatosis; particularly effective in urticaria	"All [asthmatic] patients reported greater calmness and were able to rest and sleep better...and led a more normal life....In chronic and acute urticaria, however, hydroxyzine was effective as the sole medicament." Santos, I. M., and Unger, L.: Presented at 14th Annual Congress, American College of Allergists, Atlantic City, New Jersey, April 23-25, 1958.	Eisenberg, B. C.: J.A.M.A. **169**:14 (Jan. 3) 1959. Coirault, R., et al.: Presse méd. **64**:2239 (Dec. 26) 1956. Robinson, H. M., Jr., et al.: South. M. J. **50**:1282 (Oct.) 1957.
IN HYPEREMOTIVE ADULTS does not impair mental acuity	"...especially well-suited for ambulatory neurotics who must work, drive a car, or operate machinery." Ayd, F. J., Jr.: New York J. Med. **57**:1742 (May 15) 1957.	Garber, R. C., Jr.: J. Florida M. A. **45**:549 (Nov.) 1958. Menger, H. C.: New York J. Med. **58**:1684 (May 15) 1958. Farah, L.: Internat. Rec. Med. **169**:379 (June) 1956.

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References: *1.* Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. *2.* Lichtman, A. L.: Scientific Exhibit, Internat. Coll. Surgeons, Miami Beach, Fla., Jan. 4-7, 1959. *3.* Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. *4.* Kearney, R. D.: *Current Therap. Res.* 2:127, April. 1960.

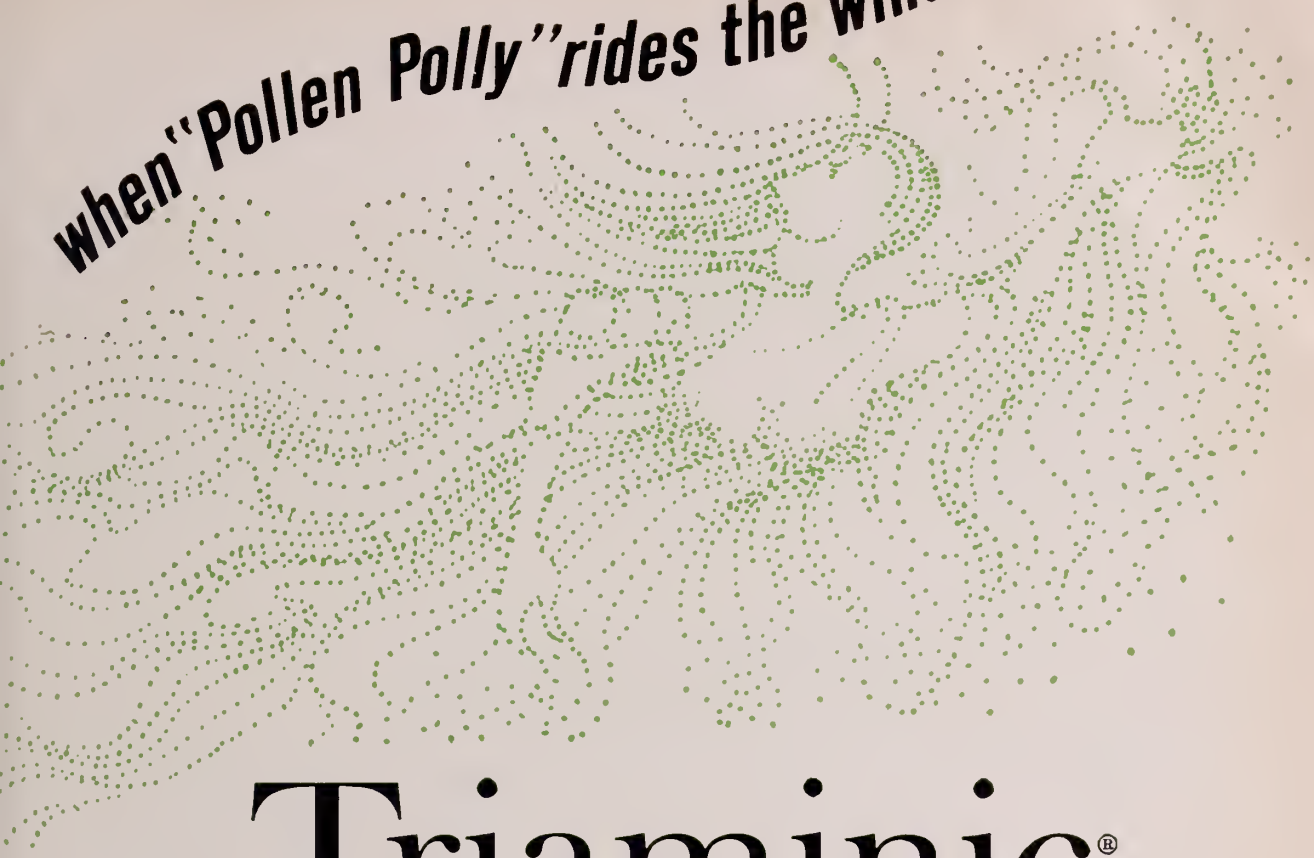
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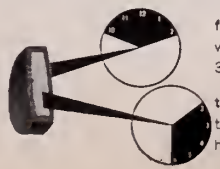
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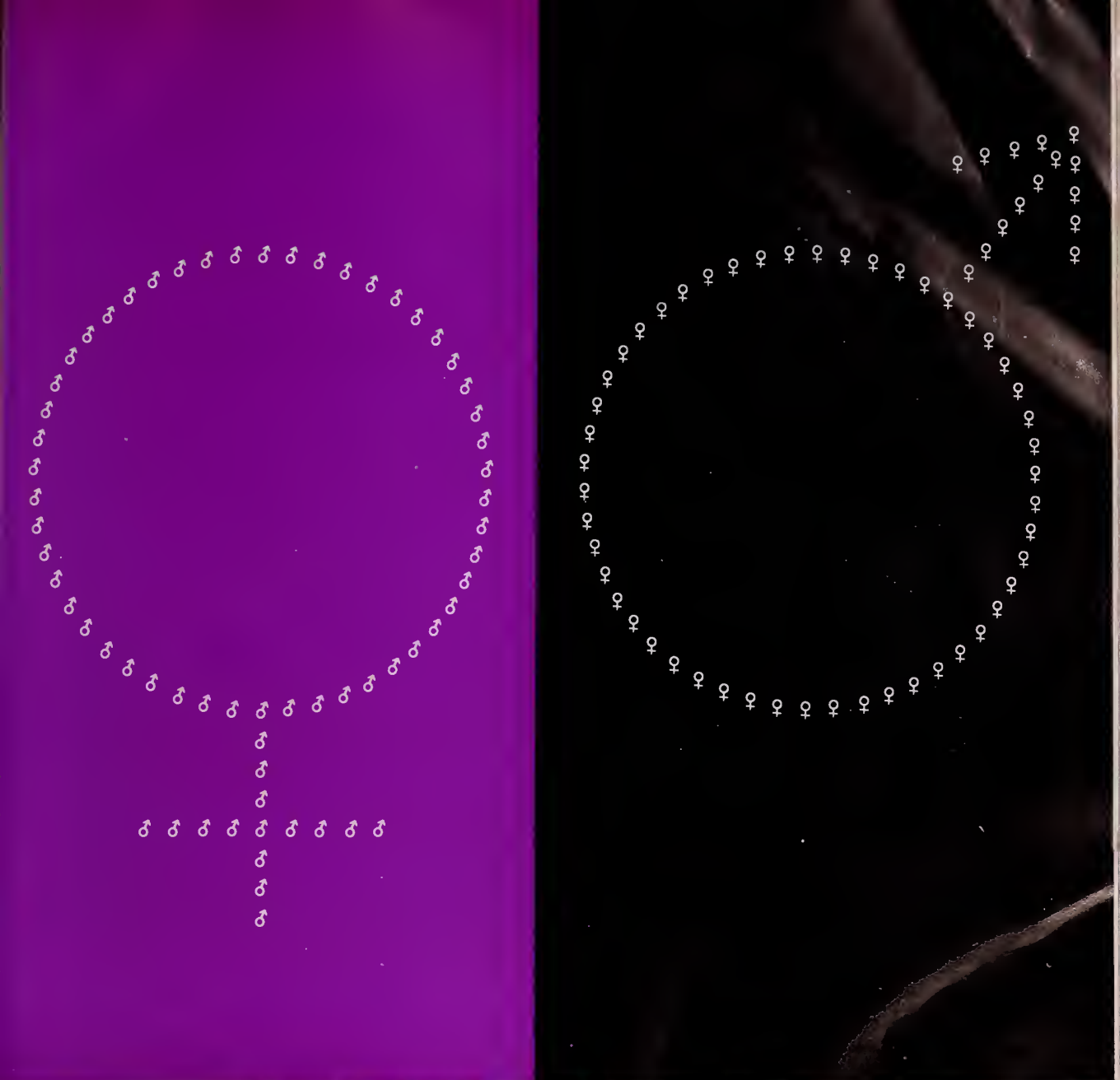


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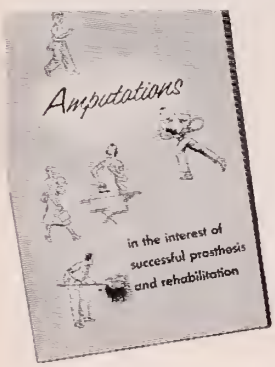
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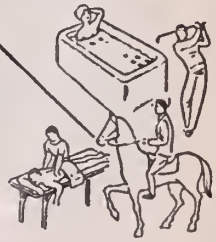
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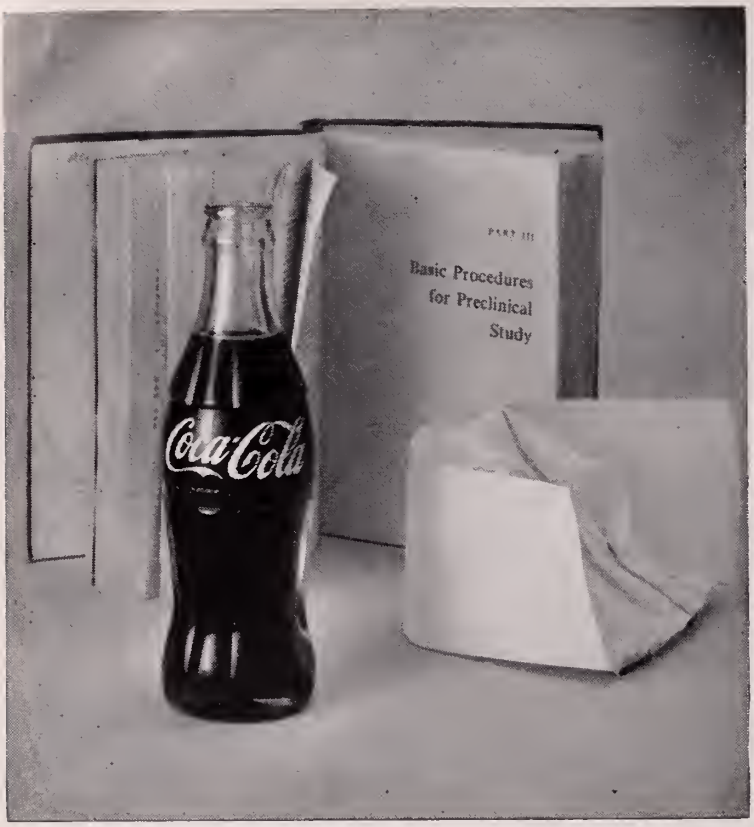
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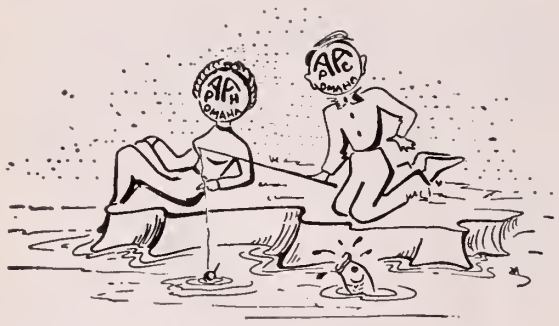
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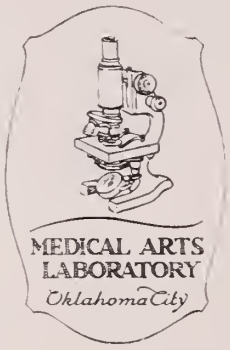
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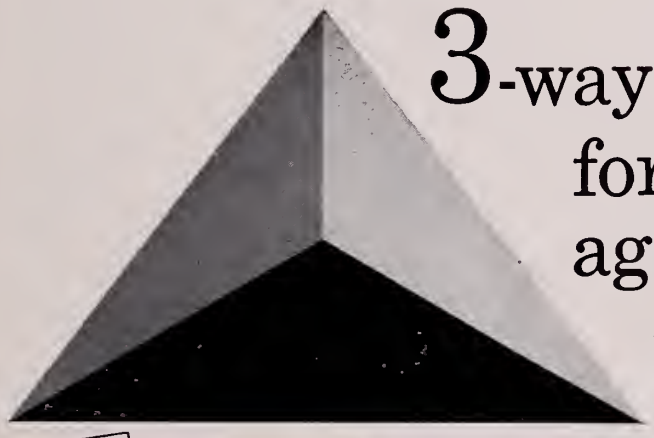
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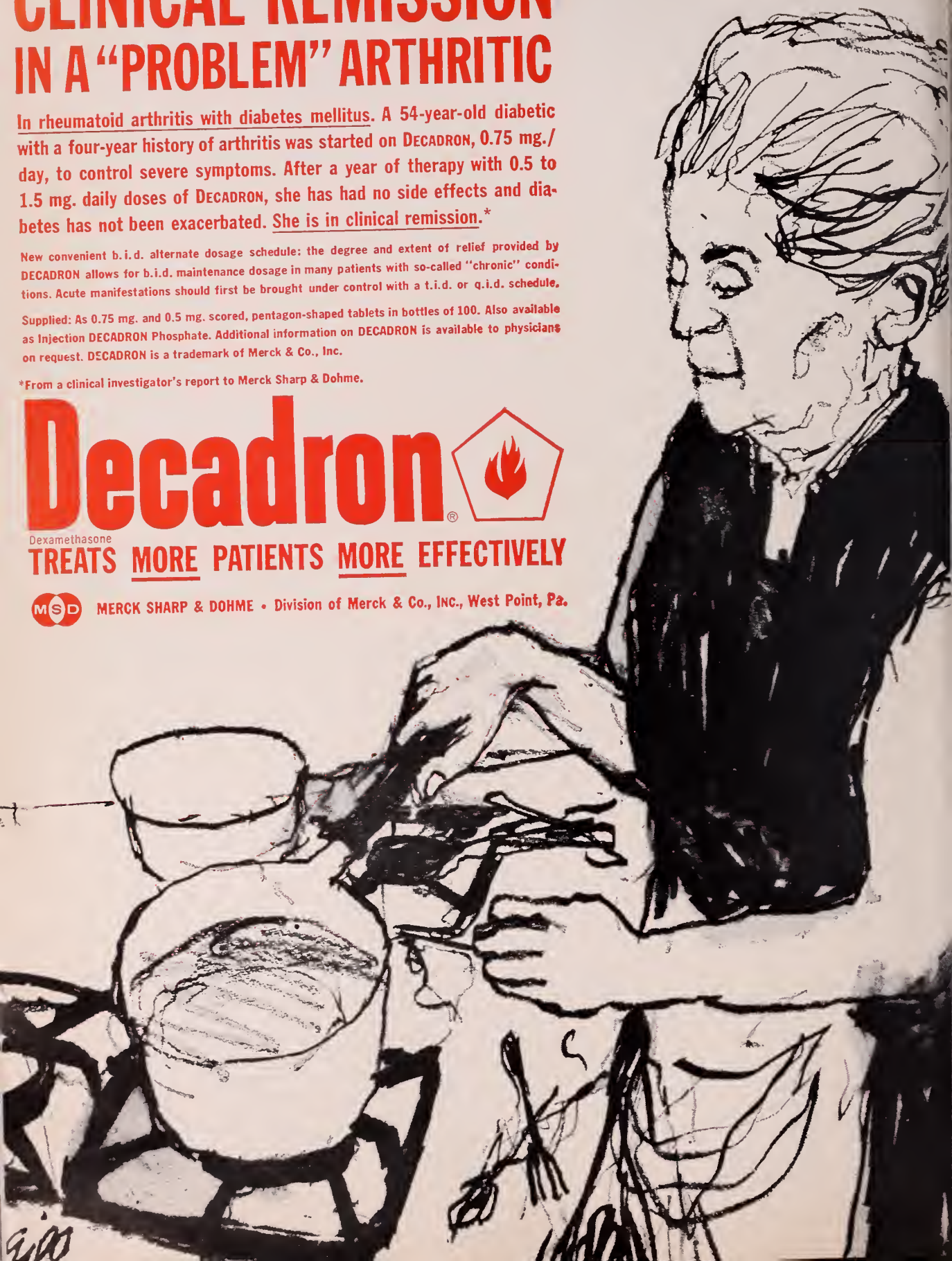
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2. Rinehart, R.E., and Marcus, H.: Incidence of Amebiasis in Healthy Individuals, Clinic Patients and Those with Rheumatoid Arthritis, Northwest Med., *54*:708 (July, 1955).

3. Webster, B.H.: Amebiasis, a Disease of Multiple Manifestations, Am. Pract. and Dig. of Treat. *9*:897 (June, 1958).

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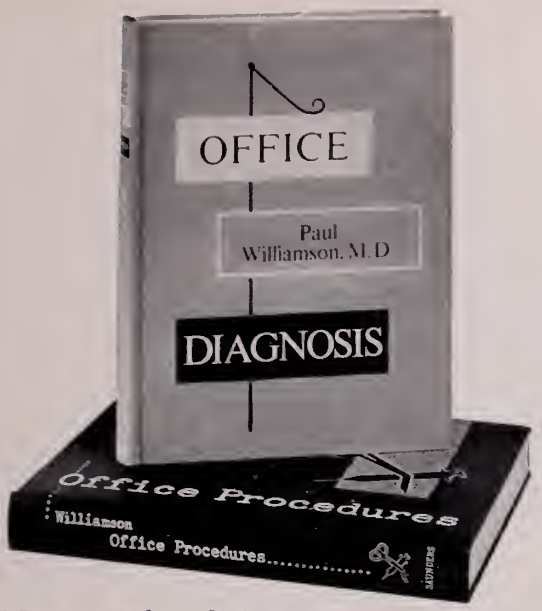
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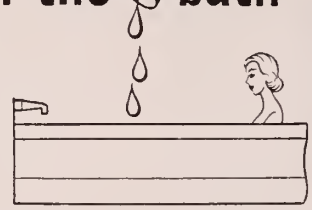
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*Knudsen, E. T., and Rolinson, G. N.: Lancet 2:1105 (Dec. 19) 1959.

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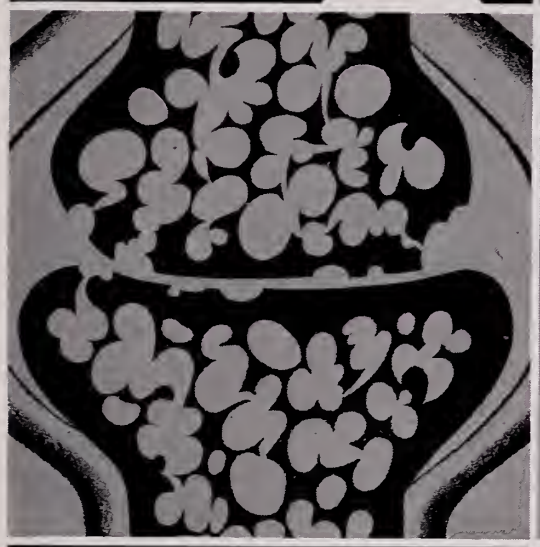
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Editorial

Making Sense*

"The meaning of words has a profound effect on the progress of medicine; for words, though they provide a vehicle by which thought can travel, seldom allow it to arrive intact at its destination.

Facts and Words

"It is pleasant to believe that the facts of clinical medicine exist quite independently of the names we bestow upon them; but this is not so. In clinical medicine it is not only a matter of finding words to fit the facts, but often finding facts to fit the words. When christening a baby we wait for the child to be born and then find a name for it. When christening a disease we wait for the name to be born and then we try to find a disease for it.

" A good example of creation beginning with the word is gallstone colic. There is no such thing.[1] Colic is a pain continuously waxing and waning, like the colonic cramps of food-poisoning. Gallstone pain steadily climbs to an agonising peak without any fluctuation and then passes off. But so firmly has the label colic been stuck on to this pain that the pain is expected to be colic, assumed to be colic, believed to be colic and finally bullied into being colic, and a patient with gallstone pain will be described as having colicky pain however steady it may be.

"Contrariwise, a condition without a descriptive term has far less chance of clinical recognition. A rose without a name may smell as sweet, but it has far less chance of being smelt. Supposing we take an unnamed fever and an unnamed pain to contrast with the examples I have given. In untreated pernicious anaemia there is often quite a high fever. 60% of my cases with red-cell counts below 1½ million per c.mm. show a fever over 101°F. This usually settles to normal levels within two or three days after an adequate dose of vitamin B_{12}. I make no claim that this fever is of great importance, but I do assert that had it been called the Addison-Castle fever or hypocyanocobalaminic fever every medical student in the land would have heard of it, many doctors would be afraid to diagnose pernicious anaemia without its presence, and the proportion of patients with this fever would rise sharply once the name got into nurses' textbooks (because if they did not show the fever they would have their thermometers put back in their mouths until they did).

" A special kind of disease-naming is done by those branches of industry whose sales depend largely on the planned creation of non-existent diseases, such as night starvation, hidden hunger, and tired blood. In this highly creative and imaginative work the importance of a good name cannot be exaggerated. One weekly paper ran a competition for an advertisement introducing a new disease with a patent medicine to cure it. Here are a few extracts from one of the winning entries:

> " 'Have you shoddy juvicles? Do you moil at night and wake prinkling, with a throbble? You are almost certainly suffering from Gloids. Waste no time. Write immediately in strict confidence for our free booklet prepared by a well-known Harley Street doctor. Mark envelope Dr. X. Gloids. Dept. KZ. All enquiries treated with strictest confidence.'

Although this may treat patent-medicine disease as a joke, it is a serious matter. We do not know how many bowel neuroses are initiated by relentlessly persuading the public into vain strivings after inner cleanliness.

*From the second Lettsomian Lecture by Richard Asher, M.D. F. R. C. P., delivered before the Medical Society of London on Feb. 9, 1959. Abstracted by permission from **The Lancet** 2: 359 (Sept. 19) 1959. See the **JOSMA**, July, 1960 for abstracts of the first lecture.

1. French, E. B. Unpublished paper read to the Association of Physicians, Edinburgh, 1957.

" There are many syndromes that have no name. For instance, there is no name for an unexplained bout of fever and malaise lasting two or three days and commoner in children than in adults. The layman calls this 'flu'; but the doctor, who correctly prefers to reserve this term for the pandemic condition caused by an identifiable virus, is powerless when faced with this condition. P.U.O. is properly reserved for more lengthy fevers. In hospital, the consultant occasionally takes refuge by filling in the diagnosis as flu and then putting inverted commas round it to show he is unhappy. In his own home, when one of his family gets it, he is worse off. He mutters vaguely:

" 'Take an aspirin or two and it'll clear up in a few days. It's nothing much. Just one of those things.'

If this does not satisfy his wife, he may be driven by sheer nomenclatural bankruptcy to call in a colleague to show his wife that another doctor cannot do any better.

"Thus words perpetuate illnesses, syndromes and signs whose existence is doubtful, deny recognition to others whose existence is beyond question and distort textbook descriptions to conform to the chosen word. It is worth pursuing the subject a little further.

Power of Words

"An ancient and important property of names is that they give to those who know them a feeling of power over what is named. However uninformative the name of his illness may be a patient feels his foe is partially vanquished once he knows its name. We all know the conversation:

" 'I seem to have an inflamed tongue, doctor. Will you have a look at it?'

" 'Ah, yes. You've got glossitis.'

" 'Thank you, doctor. It's all right now I know what it is.'

"Ogden and Richards[2] point out that every country has its story of a name that has to be discovered before an evil can be dispelled or a foe vanquished. Probably the best known of these is the story of a dwarf called Rumpelstiltskin who was able to claim a queen's first-born child unless she could find his name. With such an unusual name, he was understandably (but mistakenly) confident of success. It is not a name a nicely brought-up girl would be likely to know, for it means 'crinkly foreskin.'

"Similar stories abound in international folklore depending on the idea, that knowing the name of a thing gives power to him who knows it.

" 'What is this strange skin condition with red rings which expand from the centre in widening circles?'

" 'That', says the dermatologist, 'is erythema annulare centrifugum.'

"He has spoken the words of power, and the dignity of the profession has been upheld.

"Other words appear to hold power against the patient. If you tell a woman she has rheumatism, she asks, fearfully and tentatively:

" 'But is it arthritis, doctor?'

"The significance of words to our patients is a subject on which systematic research could gainfully be pursued. Arthritis appears to portend a protracted and crippling disease which will leave a man deformed and helpless, whereas rheumatism betokens a few aspirins, a bottle of liniment, and back to work next week. But names give comfort as often as despair, providing an illusion of clarity where there was mystery and giving a tangibility to illness which makes it more likely to be overcome. This applies both to patients and to doctors. The penetrating mind of Matthew Arnold saw through the emptiness of a name and in his poem *A Wish* he wrote:—

> Nor bring to watch me cease to live
> Some Doctor, full of phrase and fame
> To shake his sapient head and give
> The ill he cannot cure—a name.

"I may seem to imply that words only provide comforting illusions, or suitably opaque coverings for ignorance. That is not my intention; but I believe it essential to be aware of the defects and limitations of the medical vocabulary before it can be successfully used.

The Meaning

"The study of meaning is a subject so surrounded with difficulties and contradic-

2. Ogden, C. K., Richards, I. A. The Meaning of Meaning: p. 26. London, 1923.

tions that few people dare speak about it confidently. The only exception was Humpty Dumpty, whose views were admirably clear and confident:

> " 'When I use a word', Humpty Dumpty said in a scornful tone, 'it means what I choose it to mean, neither more or less.'
>
> " 'The question is', said Alice, 'if you can make a word do that.'
>
> " 'The question is', said Humpty Dumpty, 'which is to be master, that's all.'

This Humpty Dumptyrian attitude is not enough for medical semantics. When we use a word it has to mean the same to us as it does to the person we are addressing or else our thoughts are not transmitted intact. Consider the meaning of meaning as it applies to some words in the medical vocabulary.

> "First, there is the *etymological* meaning. For example, take the word 'meconium', which means poppy.
>
> "Secondly, there is the *implicational* meaning, the notions either true or false upon which the etymological meaning is based. In this case that meconium causes drowsiness as poppy seeds do, and also that the foetus in utero is kept asleep thereby.
>
> "Thirdly, there is the *referential* meaning. In this case, the black stuff in a baby's colon.

I choose this word because there is little doubt about its meaning today. But this is a matter of luck. Had it followed its original derivation it might have come to mean 'the opiates present in the foetal stools'. Then the word would have died as soon as there was general agreement that the foetal stools contain no opiates. Had the word taken another turn it would have meant 'that substance which keeps a foetus asleep in utero'; various theories as to its composition might have arisen and discussions taken place on whether a foetus sleeps in utero.

" If I labour the point I apologise, but I am convinced it is of great importance. To name a thing by its supposed cause, whether or not that cause is the right one, is a very serious mistake. To label by conjecture, instead of by observed facts is neither necessary or profitable. I am quite happy with the word myxoedema (which means 'a jelly-like swelling') and do not wish to call it hypothyroidism even though I believe that hypothyroidism is almost certainly its cause.

"The ramifications of casual names are unending. As the *Book of Job* has it:

> " 'Who is this that darkeneth counsel by words without knowledge?'

When I was a student, blood beneath the dura mater was not called subdural haematoma but pachymeningitis interna haemorrhagica. This convinced everyone that it was caused by inflammation and held up the discovery that head injuries caused subdural bleeding which can be surgically treated. Take another example. We all see middle-aged women with restless, painful, arms, worse at night and worse after doing the washing. It is a common condition and nobody really knows what causes it. Yet according to the wide varieties of cause which are suspected—so is it given as many names. Brachial neuritis, the costoclavicular syndrome, the scalenus-anticus syndrome, cervical rib, the carpal-tunnel syndrome. This is impossibly silly. If this condition had some reasonable name like 'nocturnal brachialgia' then we could profitably discuss whether it was caused by a neuritis or by costoclavicular compression or by compression of the median nerve in the carpal tunnel. But to name it the costoclavicular syndrome and then to discuss whether the costoclavicular syndrome is caused by carpal-tunnel compression makes no sense, anatomically or physically. However sure of a cause clinicians may be, a diagnostic label must be descriptive and not casual.

Targets, Navels, Mexican Hats, and Bowls

"Other types of conjectural naming are equally troublesome.

"In haematology cells are often named by what is guessed about them instead of what they look like. (I apologise for the words 'what they look like.' No proper pathologist ever reports what anything looks like—he only reports what it 'is morphologically indistinguishable from.') Though we know a lot of what red cells do, we still call them red cells—an admirable term. Other cells are less fortunate, for instance those red cells which may be found in obstructive jaundice, sickle-celled anaemia, and other

conditions. Instead of a pale centre these have deeply stained centres and thus show alternate dark and light concentric zones. About 1936, A. M. Barrett, who was a fellow student with me, became interested in them. He sensibly called them 'target cells[2]' which describes them well, and involves no conjecture about why they look like this or what properties they have. Someone else thought they looked like navels and called the abnormality 'umbonation' which, though more fanciful, is at least not conjectural. But soon afterwards two Americans[3] noticed these cells and likened them to Mexican hats: not from their appearance in stained films, but from their ideas of what they would look like if they could be seen alive. 'They do not look like Mexican hats', they implied, 'but we are sure they would, if we could see them as they really are.'

"The modern view is that these cells are abnormally thin and bowl-shaped; hence their ability to hold more fluid without bursting than any other red cells can do. So today, when a haematologist sees a cell which looks like a target he calls it a thin cell—i.e., leptocyte—though he cannot perceive that it is thin. Barrett sensibly named them by their appearance, even though he thought they were thin. The modern haematologist, instead of describing in English what he can see, prefers to describe in Greek what he can't. This is confusing because the appearance of target cells is observed but their thinness and shape is estimated. Appearances do not change as much as estimations. The Mexican-hat merchants estimated that the target cells were of normal thickness, but unduly fragile to weak saline, which is the opposite of the modern view. Had they named target cells by these estimated properties we should be in a worse muddle. In naming anything, some unchangeable attribute of that thing should be chosen to name it by.

"The other day I saw a report mentioning leptocytes, which was just going to a general practitioner. I tried to imagine how the perfect practitioner was expected to reason:

> " 'Ah yes, "leptocytosis"—thin cells. He guesses they were thin, because he believes they would hold a lot of water—because he thinks they would be shaped like bowls (or Mexican hats)—if he was only able to see what their shape was (which he can't). In other words he saw a red dot in the centre of some of the cells. Yes, that's all perfectly clear.'

"Haematologists cannot be prevented from thinking, but they could separate their observations from their conjectures. They could report 'target cells present', and then go on to say what the significance of this might be. The role of a pathologist is not to be a seer. His role is to peer. Gazing into a microscope is different from gazing into a crystal. Yet haematological prophesy is rampant, particularly in obscure leukaemias. Controversy on whether cells are myeloblasts, lymphoblasts, or monoblasts is unavoidable, because instead of naming them by their appearance the haematologist inspects the artificially dyed, corpses of grossly abnormal, newborn recently deceased white cells, smeared on a piece of glass, and then prophesies what they might become if they were to grow up (which they can't). No wonder then that when some unidentified blood-cell is found wandering at large, unable to produce positive evidence of its identity, the naming of it provides a good deal of dispute and controversy among haematologists. In the first article I ever wrote, some fifteen years ago, I said:

> " 'Let us imagine a child found wandering in the street is adopted by three priests who each christen him separately by the names of Tom, Dick and Harry. One day they meet another three priests who have behaved in a similar fashion with another child whom they have christened Harry, Dick and Tom. Now if those six priests try and have a discussion on the qualities of the two children—whether, for instance, Tom is cleverer than Harry—they are likely to become angry and to settle nothing; and they will probably go home and introduce new words such as protomocyte, pseudodickoblast and megaharryophil.'[4]

"I do not wish to be carried away from the main course of my argument by floating too far down the blood-stream, so may I remind you that we are considering the meaning of meaning and that haematological words provide food for thought on the variety of meanings—etymological, descriptive, and conjectural—which may be at-

3. Haden, R. L., Evans, F. D. Arch. intern. Med. 1957, 60, 133.

4. Lancet, 1943, i, 213.

tached to them. To appreciate it properly the meaning of the word 'leptocyte' requires a considerable knowledge of Greek, toxophilism, omphalology, hydrostatics, and hat design.

The *name* of this cell is target cell, the name is *called* leptocyte. The cell *is* a bowl-shaped cell. Does that remind you of something you read many years ago?

"*White Knight*: Let me sing you a song to comfort you. . .The name of the song is called 'Haddocks Eyes'.

"*Alice*: Oh, that's the name of the song, is it?

"*White Knight*: No, you don't understand. That's what the name is *called*. The name really *is* 'The Aged Aged Man'.

"*Alice*: Then I ought to have said 'That's what the *song* is called'?

"*White Knight*: No, you oughtn't: that's quite another thing! The *song* is called 'Ways and Means'; but that's only what it's *called* you know.

"*Alice*: Well, what *is* the song then?

"*White Knight*: I was coming to that. The song really is called 'A-sitting on a Gate': and the tune's my own invention.

"Similarly, we could say: 'The *name* of this disease is Graves' disease; the name is sometimes *called* exophthalmic goitre; the *disease* is called hyperthyroidism; and the disease *is* thyrotoxicocis. Four names for the same condition. This is difficult for students and spoils words we need for another purpose. We need the term exophthalmic goitre to describe the not uncommon association of staring eyes, with goitre but without any thyrotoxicity. (By the way, notice I said 'staring'—a very useful word which covers the lid-retraction, the exophthalmos, and the increased glitter from the moist eyeball, which together comprise staring. Most of you probably write exophthalmos when you mean staring. The idea that a long word is more accurate seems to be inborn. For example I am sure you rarely use that accurate and short word 'stroke'. No, you write down cerebral thrombosis, cerebral haemorrhage, or cerebral embolus, according to your fancy, though you have little idea how to tell one from the other; even at postmortem pathologists may be uncertain. Though there is this short word which covers all three, you choose a long word which describes a guess. It is odd. I suppose it is the dislike of sharing words with the laity.)

Style

" Lastly, I say something about style. I don't care a fig about schoolroom stuff on the difference between phrases and clauses or the distinction between metaphors, similes, and hyperboles. But I do feel strongly about style. It is only a matter of putting down what you have to say in the neatest and most palatable form. And it cannot be done except by taking a lot of trouble in doing it.

"Recently a doctor wrote an article about bedwetting in which he wished to draw a distinction between better-educated people who plan a small but successful family and those with lower standards who raise large mediocre families. This is the way he described them (but I have condensed it a good deal).

" 'The mobile families described as showing a loose-knit kinship network and shared conjugal roles accept occupational emancipation and its consequences on interpersonal relationships. They determine the number of their children by a critical assessment of their own emotional, social and economic potential, and they strive to create one or two competitively successful children rather than a gregarious egalitarian sibling group.'

"Well I ask you? When you take your family on holiday, do you say 'I am taking my gregarious egalitarian sibling group with me'?

" . . . Yet, very often, technical words are used which add very little information, and befog the puzzled minds of those who read them. There is much talk today of the degrading effect of reading comics instead of more serious journals. Here are two descriptions of psychopathic personality—one from a serious medical journal and the other from a particularly low comic—that I borrowed from one of my children.

" 'In defining the psychological use of the term psychopathic personality I assume a pathophysiology of the brain on a multifactorial basis, genetically predisposed in which contemporary systems are malintegrated the one with the other but whose tie with what happened in infancy is historical rather than causative.

This agenesia is homologous in its physiological aspects with normal behavior.'

That one perhaps some of you guessed, is the extract from the serious journal. Now I read you extracts from a journal (which I am afraid you cannot get at the Royal Society of Medicine) ; but the reference is *Top Spot,* Oct. 25, 1958, p. 1. (All the words are in block letters in circumscribed areas within the illustrations which are lavish and colourful.

" 'This is the story of Charlie "Hot Fingers" Hart, who liked his guitar, easy lolly, flash suits and smart dames. Charlie chorded his guitar and sang in his gravel voice; his sulky lips pouted, his eyes lidded and his hips snaked.'

I wonder which of these two accounts of a psychopath you prefer? Do you altogether blame me that for the rest of the evening, instead of improving my mind by continuing to read that most respectable medical journal, I sat wrapped in the story of Charlie 'Hot Fingers' Hart?"

"On Call to a Nation"

The above title is applied to the sound-moving picture report of the first 10 years of "Socialized Medicine" in England. The wording is especially significant in view of the comment of one of the narrators who said the physicians were *legally bound to be on call 24 hours every day.* Any time a physician desires to take off he must arrange for another to answer his calls.

Though unfamiliar with the trades in England we think one would be safe in assuming the Government does not so rigidly control the hours of service nor the availability of *ANY* other group of people as it does the Medical Profession under its present system of Medical Care which went into effect July 5, 1948. There was some difficulty in understanding the English physicians and narrators but in general the method of handling patients was evident. Lined up on long benches and occasionally on chairs in the waiting rooms, the patient at the head of the group would move out as his name was called and all in the waiting room would move up one position. New arrivals went automatically to the rear of the line. Physical examinations were apparently not often done, interviews were brief, prescriptions were handed out, and the patients referred for consultation or hospitalization. Ancillary help or office assistants were not available for many of the private practitioners—usually only the association of three or more physicians in groups enabled them to have the service of a secretary or a nurse.

Referral of a patient for hospitalization, special study, consultation or for operation by no means assured him of these services within any reasonable period of time.

Physicians' responses to questioning as to how they liked the plan, and how it affected the welfare of the patients were extremely interesting because almost without exception those physicians who had been in practice prior to the inception of Socialized Medicine, July 1948, said they could not do for their patients as much as they formerly were able to do, either in actual treatment of the patient or in referring him for consultation or for necessary operations. Those younger men who had been in practice only under the system remarked that they thought the plan was good, but NEVER did there appear much enthusiasm on their part. Among some of the startling statements which were made in this report which stand out as danger signals to everyone in this country are these:

(1) 500,000 patients already approved and certified for hospitalization are awaiting admission.

(2) It is necessary to go back to 1870 to find a decade in which fewer additional hospital beds were made available in England than in the first ten years of Socialized Medicine. This is particularly significant because more beds, hospitals, and better hospital services were promised by the advocates of the plan as the natural and expected benefits to the people.

(3) More than 50% of ALL hospital

beds in England are occupied by the chronically ill, the aged and the mentally sick thereby greatly limiting the number of beds for acute illnesses and for surgical treatment.

(4) One hospital administrator speaking of his own hospital, stated that the waiting list on General Surgery was more than 800 and some had been on the list for three years. In the same institution Orthopedic Surgery had in excess of 600 cases waiting for hospital admission, and some of these had been on the list for six years, and so on through other services.

(5) A warehouse erected in 1918, comparable to the more recent quonset hut is now in use as an Ear, Nose and Throat division of one of the larger hospitals.

In contrast to the hospital bed situation in England under 10 years of Socialized Medicine, 1948-1958, we in this country in almost exactly the same period of time, 1948-1959, increased the number of hospital beds 30% or an increase of 305,000 beds.

It is tragic that the entire picture of Socialized Medicine with its weaknesses and pathetic inadequacies cannot be so graphically presented to the American public, legislators, writers and newspaper people that we all might be made acutely conscious of the great hazard we face in losing the most advanced medical knowledge and most *nearly adequate* medical care the world has ever known.

The report does not discuss the cost of services rendered, nor does it mention the cutbacks, limitation or fees imposed.

In 1948, the British Government estimated the cost of the National Health Service for *free* medical and health care for *everyone* would be 170 million pounds (about $476,000,000) annually.

An AMA pamphlet entitled "The Pill That Could Change America" gives the following information—

"First full year National Health Service was in operation it cost 440 million pounds —nearly triple the estimate. In 1958, the NHS bill has soared to 705 million pounds annually. British Chancellor of Exchequer told the House of Commons in 1958, "free health service whatever it may be doing for the health of Britons, is leaving the Treasury gasping. In 1959, the service will cost 740 million pounds (2 billion dollars)."

AMA News, Sept. 1959 says:

"The British Labor Party, in a 6,000-word policy statement proposing a broad shakeup in Britain's National Health Service, said it found 500,000 people waiting for hospital beds, doctors underpaid, with more money being spent on the drugs they prescribe than on the MDs themselves, and 'millions of hours' being wasted by people in waiting rooms."

The film may be obtained through the Film Library of the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.—*George H. Garrison, M.D.*

Scientific Articles

Mucormycosis

A case report and a brief review of the literature on this little known disease entity.

RICHARD A. BAYLOR, M.D.

HENRY J. BIERMANN, M.D.

Richard A. Baylor, M.D., graduated from the State University of Iowa College of Medicine in 1929. He is now staff physician at the Veterans Administration Hospital in Oklahoma City.

Henry J. Biermann, M.D., graduated from the Creighton University School of Medicine in 1952 and limits his practice to General Surgery. He is staff surgeon at the Veterans Administration Hospital at Muskogee, Oklahoma.

MUCORMYCOSIS is not a new disease, but it is still relatively rare. There have been 13 cases reported in the United States between 1943 and 1956. The disease entity was first described by Paltauf in 1885. These fungi are not usually considered pathogens. They are probably world-wide in distribution and are frequent laboratory contaminants. In human infections they tend to become active in patients with diabetes mellitus, leukemia, multiple myeloma and cirrhosis of the liver. Predisposing factor is usually heavy doses of antibiotics, steroid compounds or antileukemic drugs.[1,2,3]

Pathology

This fungus has a marked predilection for blood vessels. It penetrates the muscular layer of the arteries and then grows within the lumen tending to occlude the lumen and, therefore, to form infarcts. It may also affect the veins and lymphatics. In the veins it can form thrombi. Common sites of infection are paraorbital tissues, paranasal sinuses, lung, brain and gastrointestinal tract. A disseminated form has also been reported. Contrary to most fungus diseases, mucormycosis tends to run an acute course. Recovery of patients with sinusitis and orbital cellulitis has been reported. Diagnosis is made by demonstration of the organism in the tissue, smear or culture. There is no specific therapy. Treatment is of the underlying disease. Desensitization of the patient to an autogenous vaccine has been used. Iodides have been of some benefit.

Case Report

This 39 year old colored veteran was admitted to the Veterans Administration Hospital, Muskogee, Oklahoma on November 25, 1959 because of cellulitis of the left hand for three days. A diagnosis of diabetes mellitus had been established in January, 1948. Before entering the hospital the patient had been taking 36 units of NPH insulin daily. He had numerous previous admissions to this hospital due to problems in diabetic control.

On physical examination the patient was a tall, lanky colored male 39 years of age.

There were numerous large tender indurated lymph nodes in the left axilla. In the left epitrochlear area there were two or three large tender nodes. The entire left hand was edematous and swollen to once again its normal size. There was an ulcer of the skin 1 cm. in diameter on the dorsum of the fifth metacarpophalangeal joint. Bloody pus exuded from this when pressure was applied to the dorsum of the hand over the fourth and fifth metacarpals. The superficial epithelium was desquamated over the distribution of the ulnar nerve on the dorsum of the left hand. He had difficulty in flexing the fourth and fifth fingers. When this was done forcibly there was pain in the carpal tunnel. There was, however, no swelling in the carpal tunnel and no area of fluctuance in the hypothenar or mid-palmar spaces. There were no red streaks up the arm. The remainder of the physical examination was essentially negative except for evidence of diabetic neuropathy on neurological examination. Working diagnoses were: (1) cellulitis with abscess formation, left hand; (2) diabetes mellitus, severe; and (3) diabetic neuropathy, both lower legs.

Of note in the urinalysis on admission was albumin 4 plus, sugar 4 plus, negative acetone and a few erythrocytes. Serology was nonreactive. Leukocyte count was 11,700 with neutrophils 74%, lymphocytes 17%, monocytes 4% and eosinophils 1%. Also reported were: Hemoglobin 12.6 grams; a sedimentation rate of 20 mm.; and a hematocrit of 40%. The blood sugar on admission was 185 mg%.

He was put on a sliding scale insulin dosage with regular insulin, based on the urinary sugar. On this management he required up to 80 units of regular insulin per day. His fasting blood sugar ran as high as 316 mg%. In consultation with the Medical Department it was decided to place him on a 2,000 calorie diet and try him again on NPH insulin. He was started with 30 units before his breakfast with supplemental doses of regular insulin at noon, supper and bedtime. On December 9, 1959 incision and drainage of the cellulitis was done by Doctor Henry J. Biermann of the Department

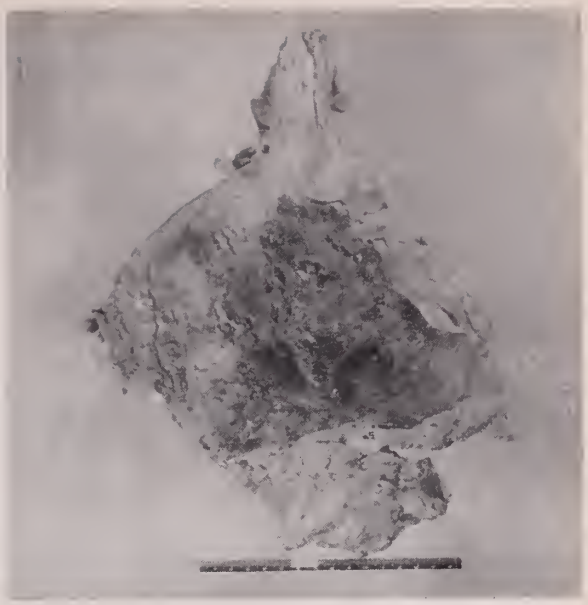


Figure I. Stomach and distal esophagus. There is marked necrosis of the mucosa and wall of the stomach which is extremely friable. This is the picture of phlegmenous gastritis.

of Surgery. Culture of the pus showed aerobacter aerogenes; hemolytic pigment forming coagulase positive staphylococcus aureus. Patient was treated with large doses of penicillin, novobiocin and tetracycline. Gradually the infection in the hand was brought under control and good healing was obtained. On December 22, 1959 he was transferred to the Medical Service for further management of his diabetes and nephritis. By this time the patient's appetite had become very poor. He refused food and

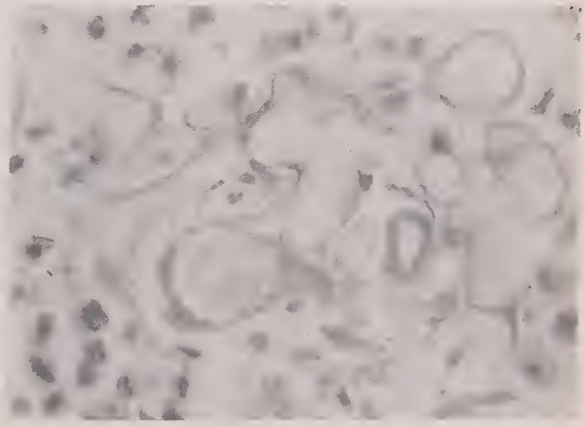


Figure II. Stomach. Fungi displaying the characteristic morphology of mucormycosis are easily identified. Hematoxylin and Eosin.

had to be maintained on parenteral fluids. He was again placed on a sliding scale of regular insulin. Blood non-protein nitrogen at this time was 169 mg%. Blood pressure was 200/120. His course continued downhill with progressive increase in coma until he expired on January 10, 1960. At no time during his hospitalization did the patient show any abdominal distention or rigidity.

At autopsy the gross findings showed a generalized peritonitis with abscess formation. This involved the area of the stomach and pancreas and down into the pelvis where there were loculated abscesses. The stomach was involved in a phlegmonous process that had reduced the stomach walls to tissue paper thinness. The serosal surface of the stomach was covered by a thick fibro-plastic yellow exudate. On opening the stomach the mucosa was hard to recognize. It was covered with a shaggy, yellowish-black material and the wall was markedly thin. In a few areas the wall was tissue paper in thickness. The kidneys were slightly enlarged with finely granular external surfaces. The capsule stripped with ease. On the cut surface the cortices were pale, bulged slightly, but no abscesses were noted. Calices were not dilated.

On microscopic examination the pancreas was markedly distorted by virtue of inflammatory reaction. The inflammatory reaction varied from acute to chronic in nature and was frequently associated with marked fibroplasia. Numerous areas associated with the inflammatory reaction were noted. There were numerous thick septate hyphae as well as atherospores consistent with mucormycosis. The extraneous tissue showed dilatation of the acini and some atrophy. The islets showed marked hyalinization. Sections of the stomach showed almost complete distortion of the structures. There was an acute purulent inflammatory reaction with marked necrosis of all layers from mucosa to the serosal aspect. The inflammatory reaction in some areas was scant while in others it was teeming with polymorphonuclear leukocytes. There were numerous hyphae and spores similar to those noted in the pancreas. These same organisms were seen in the blood vessels.

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AMA Endorses Blue Shield

Relaxing a long-standing policy of neutrality in the Blue Shield vs. commercial insurance battle, the A.M.A's House of Delegates formally recognized Blue Shield as a "proper economic arm" of the medical profession during its annual meeting in Miami Beach.

"Blue Shield plans need and deserve the support of physicians and medical societies," according to the approved report of the Council on Medical Services, and physicians are urged to participate. Also mentioned in the report were "improvement and expansion of benefits" and "cooperation in preventing abuses of the patient, physician and plan."

According to John Castellucci, Executive Vice-President of the Blue Shield Association, the report "puts us in a good position to be more flexible in expanding our benefit structures." It is anticipated that Blue Shield will attempt to use the cooperative spirit of the report to expand its chief competitive weapon—service benefits. But indications are that it will be a slow, hard fight despite the commendatory nature of the AMA report.

Author describes a substitute urinary bladder with near perfect continence created from a loop of the distal ilium. Urine emerges via normal channels.

A Substitute Urinary Bladder With Continence*

CHARLES L. REYNOLDS, JR., M.D.

Charles L. Reynolds, Jr., M.D., graduated from the University of Texas, Southwestern Medical College in 1949. After practicing in Weleetka and Okemah, Oklahoma, Doctor Reynolds returned to his school of graduation in 1955, where he completed a one year residency in general surgery and three years in urological residency. Since July, 1960, he has been in private practice in Oklahoma City.

Doctor Reynolds is a member of the Oklahoma Urological Association, the Texas Urological Association, an honorary member of the Mexican Urological Association and a Fellow in Surgery at the University of Texas, Southwestern Medical College.

THE PURPOSE of our study was to determine the feasibility of utilizing a segment of distal ileum for the creation of a continent internal urinary bladder and to study the changes produced by intermittently sacrificing and observing the animals over a period up to three years.

Historical

The first attempt at such a procedure was made by Tizzoni and Foggi[7] in 1888, who succeeded in creating continent substitute bladders in two dogs by isolating a segment of small bowel and interposing this between urethra and the skin. The ureters were implanted into the wall of the segment. The cutaneous openings were later closed. Though no chemical or pathologic studies were made, the dogs were alive, well, and voiding spontaneously with continence two months later. Apparently this concept for the use of ileum remained relatively forgotten until Bricker[1] reported his famous blind loop ileostomy for urinary diversion. Pyrah[2] then became interested and performed an operation aimed at creating a continent internal bladder in a one stage procedure by utilizing a twenty-two inch segment of distal ileum, anastomosing the ureters bluntly into the two ends and attaching the ante-mesenteric center of the loop to prostatic urethra. His patient is at present alive and well, continent in the daytime but not at night. The chemistries have remained normal.

Operative Procedure

Our experimental study on twenty dogs consisted of performing both single and dual stage operations with a variety of ureteral anastomoses.[4] The one stage operation consists of a cystectomy after which a segment of distal ileum approximately ten inches long is isolated and the bowel reanastomosed. Both ends are closed and urethra is anastomosed to the ante-mesenteric center of the segment. The ureters are attached to the segment on each side of and two inches from the urethra. A specifically devised

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Acknowledgments: This project was carried out at the Veterans Administration Hospital, Southwestern Medical School, University of Texas. Research aided by grant from the U.S. Public Health Service. We wish to express our appreciation to Mrs. Frances Jay for her secretarial assistance.

ureteral anastomosis to which we accord considerable significance was used in addition to a variety of tunneling anastomoses. The special anastomosis consists of a blunt end to side attachment into the segment in the above described location. In addition, the adventitia of the ureter is sutured to the serosa of the segment for a distance of 1½ inches, making sure that the ureter is at right angle to the long axis of the loop. This provides a sphincteric action in that as the segment expands with urine, the ureters flatten and become more angulated. As contraction occurs the attached ureters bend and kink. Either situation is less conducive to ureteral reflux. The two stage operation is identical except that the distal end of the loop is brought out to the skin for continuous drainage. The cutaneous opening is closed at a later date.

Results: One Stage Procedure

Eleven dogs underwent a one stage procedure. Five had a tunneling type of ureteral anastomosis, and all died of uremia following stricture formation with subsequent hydronephrosis. The three surviving animals had the special ureteral anastomosis we have described. After one week continent voiding without residual occurred. Reflux was absent and post mortem retrograde pyloureterograms revealed little or no dilation of the upper tracts. Discharge of mucus was enormous, requiring repeated irrigations to prevent obstruction. Chemistries remained normal* The animals were sacrificed after three months and gross pathologic examinations revealed an abundance of mucus in the new bladder but no dilation or stricture formation of any portion of the genitourinary tract.

Results: Two Stage Procedure

In nine dogs undergoing two stage procedures, four deaths occurred. Again the five surviving animals had the previously described ureteral anastomosis. Following closure of the cutaneous openings of the segments, continent voiding without residual began immediately. Cystometrograms performed on three of the animals revealed bladder capacities of about 120 mls., with forceful kickoff at volumes of from 100 to 120 mls. Cystograms revealed evidence of reflux in two animals on one side only. Chemistries remained normal. A striking fact was that after three to six weeks very little mucus was produced and this permitted us to close the cutaneous openings. After closure formation of mucus was not a problem. The animals were sacrificed at intervals of from three to seven months and practically no mucus was found. No gross pathologic changes were noted.

Two Stage Procedure in Man

On the basis of our experimental work we felt justified in performing the two stage operation on man. To date, two such procedures have been performed. One was upon a 38 year old white male, who for ten years had progressive leukoplakia of the urinary bladder with scattered islands of cystitis glandularis and a bladder capacity of from 30 to 40 mls.

This man is now 2½ years postoperative and still carries no residual urine. Mucus is not a problem. Reflux is now evident on the right but this does not seem to precipitate acute infections. Excretory urograms reveal some dilation of the right pelvis and ureter but none on the left. The chemistries remain normal and the urine sterile, though a few pus cells are noted in the midstream urine. There has been no change in the bladder capacity of 175 mls., and the patient is continent except for bedwetting one time nightly.

The other patient, a 69 year old white male had a grade IV, stage B-2 transitional cell carcinoma of the bladder just above a ureteral orifice. Cystectomy and a two-stage procedure were performed with one difference and that is that both ureters were implanted into the isoperistaltic side of the ideal segment. Two attempts were required to close the ileostomy opening. The patient had a stormy postoperative course because of the development of hepatitis. He is now one year postoperative, has reflux on the left side and no residual urine. The bladder capacity is 200 mls., the urine is sterile but contains a few pus cells. The

*Routine chemistries included carbon dioxide combining power, chlorides, blood urea nitrogen, creatinine, sodium, potassium, and phosphorus.

excretory urograms reveal minimal dilation of the upper urinary tract. Mucus is not a problem. I do not know how long we will be able to follow this man because he now has cirrhosis of the liver, possibly secondary to the hepatitis.

Dogs—Long Term Follow Up

Five dogs were prepared by the two stage procedure for long term follow up. Two of the animals died at 9 and 12 months, respectively, from causes other than the urinary tract. Two animals were sacrificed after two years and were found to have normal urinary tracts. The substitute bladder contained scattered islands of transitional epithelium, apparently creeping upward from the urethra on an intact viable basement membrane from which most of the original mucosa had sloughed.

The fifth dog is now nearly three years postoperative. He is a healthy, happy farm animal which I have not sacrificed.

All five of the animals appeared to be continent and to maintain sexual potency. None were bothered by mucus. The chemistries remained normal.

Summary and Conclusions

The conclusions of the original papers[3, 4] still hold in that the two stage procedure appears to be the operation of choice because of mucus. Optimum time to close the cutaneous opening is when the secretion of mucus has diminished, chemistries have stabilized, and any temporary dilation of the upper urinary tract has subsided. The specially devised ureteral anastomosis seems superior in that a blunt end to side junction avoids stricture formation while its long attachment to the segment affords a sphincteric action. The peculiar pseudomembranous necrosis of the mucosa is clinically beneficial in that there is corresponding decrease in the mucous secretion.

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Outlook on H.R. 10

H.R. 10, the Smathers-Morton-Keogh-Simpson Bill, is now awaiting its fate in the U. S. Senate. After previously passing the House of Representatives, the tax equity measure for the self-employed then went to the Senate Finance Committee, where it was amended to overcome objections by the Treasury Department. If passed by the Senate in its amended form, it will have to go back to the House for final approval.

The Senate, which began intermittent debate on H.R. 10 on June 29, failed to act before the recess, will resume debate on August 8. Although a number of amendments were being proposed on the floor of the Senate which could sidetrack the measure, it is reported that seventy senators favor it in its present form.

As presently constituted, the bill permits self-employed persons a tax-deferred set-aside of 10% of annual income up to $2500 per year. The money could be placed with a bank or other fiduciary, as trustee, invested in insurance annuities, or in a new series of U. S. Bonds. Income tax would not be paid until the money is withdrawn, at a rate determined by the person's tax bracket at that time.

Employees of the self-employed person who have three years' tenure, must be provided for, with the employer's contribution based on a percentage comparable to contributions made in his own behalf.

Phenylketonuria in Oklahoma

LUCIUS WAITES, M.D.

THOMAS O. NICKLAS

A PRELIMINARY SURVEY of phenylketonuria (phenylpyruvic oligophrenia) in mentally retarded individuals in the State of Oklahoma has been completed. The study included Enid State Training School, Pauls Valley State Training School, Western State Hospital, Eastern State Hospital and Taft State Hospital. A previous survey had been completed in Central State Hospital and is included.[1] Most of the Special Education Classes for the trainable group were surveyed but the educable students remain to be checked. Some private institutions for the mentally retarded were also included. In summary, the survey of the high-risk group has been completed but the lower-risk group study will be completed in the near future.

The following table lists the number of patients that were evaluated and the age group of these individuals:

Total Number	4470
Individuals over 14 years of age	2650
Individuals under 14 years of age	1820
Total Number of Individuals with Phenylketonuria	21

The oldest patient in the series with phenylketonuria is a 78 year old female and the youngest patient with phenylketonuria is a 5 year old female.

The diagnosis was made by observing the reaction of a fresh aqueous ferric chloride solution (10%) with the urine. A positive reaction is denoted by a blue-green color within one minute after the ferric chloride solution has been added to the urine, or a few drops placed on a wet diaper (diapers may be used that have not been dry from the urine for more than six hours). Some substances in the urine give a purple reaction, but this is never found in phenylketonuria. Dinitrophenylhydrazine and Phenistix* were employed in some parts of the study but were not used routinely.

There were four individuals with phenylketonuria in whom therapy was indicated, and they are under observation and treatment. The treatment consists of proper dietary regimen low in phenylalanine content.

*Ames Company

Since graduating from the University of Tennessee College of Medicine in 1947, Lucius Waites, M.D., has limited his practice to Pediatric Neurology. He is certified by the American Board of Pediatrics. Doctor Waites is Assistant Professor of Pediatrics and Neurology at the University of Oklahoma School of Medicine.

Thomas O. Nicklas is a third year medical student at the University of Oklahoma School of Medicine and trainee, USPHS, Grant No. 2B-5266.

As ten to twenty per cent of the patients with phenylketonuria are generally missed in a single urine analysis, continuation of this study is planned.

Comment: The main purpose of this study is the prevention of mental retardation. Phenylketonuria is an inheritable disease which follows a recessive pattern. Therefore, the relatives of the patients must be made aware that the condition may recur. They must understand that this type of mental retardation can be prevented by treatment begun in early infancy. All families of individuals with phenylketonuria in this survey have been informed of this condition, and of the possibility that it may recur in infants born of relatives. They have been encouraged and advised to seek immediate medical aid for any infant who is not developing properly.

Every infant who is not developing normally, either by history or examination, deserves a urine analysis for phenylketonuria.

(Miss Mary Crossley, a high school senior in Del City, checked the urine of 510 normal high school students, and 40 mentally retarded students in a special education class in Midwest City. She found one patient in the mentally retarded group with phenylketonuria, and this is one of the four now under observation and treatment. Her study was part of a high school science project and she is to be commended for her endeavors.)

(Aided in part by support from the MCH Division of the Oklahoma State Department of Health for the first two months of the study.)

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With the advances in open heart surgery, diagnostic methods for the evaluation of acquired valve lesions are needed. A technique to study the heart's left sided hemodynamics is presented.

Left Heart Diagnostic Method*

GERALD L. HONICK, M.D.

Gerald L. Honick, M.D., graduated from the University of Oklahoma School of Medicine in 1953 where he is now a Research Fellow in Cardiology.

WITH CONTINUED ADVANCES in open heart surgery attention is now being directed toward correcting lesions as well as the congenital defects. This necessitates accurate pre-operative evaluation. For instance, when considering a patient for mitral valve surgery, the mere suspicion that stenosis or insufficiency predominates is not accurate enough. If mitral regurgitation is significant open heart surgery is required instead of the ordinary mitral commissurotomy.

Left heart catheterization by the paravertebral,[1] transbronchial,[2] supersternal,[3] or transseptal[4] techniques gives left atrial pressures and diastolic pressure gradients across the mitral valve which are helpful in mitral stenosis, but frequently are less helpful in mitral insufficiency. A left ventricular angiogram is an important procedure in evaluating mitral insufficiency. Various techniques have been described for doing left ventricular angiograms. Injection of contrast media through a needle directly into the left ventricle has caused deaths in 85 cases.[5] Also a subxiphoid approach in which the needle traverses the right ventricle and the septum into the left ventricle has resulted in three deaths in 77 cases.[6] Inadvertent intramyocardial injection of contrast media was the cause of deaths.

In 1950 Zimmerman introduced a catheter into the left ventricle by way of the aorta, passing the aortic valve in a retrograde fashion.[7] Amplatz introduced a large catheter in the femoral artery which was advanced to the ascending aorta.[8] In the lumen of the catheter a two or three inch flexible, tightly coiled spring on the distal end of a wire stylet was advanced beyond the end of the catheter. During fluoroscopy the spring was maneuvered at the aortic valve and entered the left ventricle. The catheter was then slipped over the spring stylet into the left ventricle and the stylet was removed. The catheter had multiple side holes which allowed for an even injection of contrast media with little danger of injecting into the myocardial wall. Dotter, using Seldinger's technique, has described a similar method using a spring.[9] Lambert and Vlad reported 117 cases of left heart catheterization by the retrograde technique and were successful in 90 per cent of the cases.[10] Five of the twelve failures were due to aortic stenosis. However, of eleven cases of aortic

*Presented at the Oklahoma County Heart Association, January 25, 1960.

stenosis, six were successful. Forty-one times they attempted to enter the left atrium from the left ventricle and were successful in fifty per cent. They reported no complications. Green, Ziegler, and Kavanagh-Gray were successful in entering the left ventricle in 88 per cent of 100 cases using this technique.[11] They think that most often the cause of failure is due to marked dilatation of the aorta or difficulty in entering the ascending aorta.

Sones has done many left heart catheterizations by this retrograde technique and rarely was unable to enter the left ventricle.[12] A spring was not used with the catheter. Instead a Rodriguez Alvarez catheter (closed tip, six side holes) was inserted in the right brachial artery and passed into the ascending aorta. His technique is to form a small loop in the distal end of the catheter which allows the aortic cusps to catch this loop during systole. Then the tip can be manipulated into the ventricle. However, with aortic stenosis the tip of the catheter must enter directly into the left ventricle without the benefit of a loop. While attempting to accomplish this in a patient with aortic stenosis the catheter followed the wall of the aorta and consistently stayed in the dependent sinus of Valsalva. It was impossible to move the catheter tip in any other location. Thus it appeared that if one could direct the catheter tip perpendicular to the center of the aortic valve there would be greater chance of success. By molding the catheter tip into an elongated S-shape it was hoped that this bend would lift the tip away from the wall. Ten of the eleven attempts using this type catheter have been successful. Experience in the future may show that this modification may not be necessary.

In brief, acquired valve lesions can be adequately studied by the following procedures. In suspected cases of mitral stenosis, with a catheter in the left ventricle and a good pulmonary wedge pressure, the mitral valve gradient is obtained. If stenosis is shown, contrast media can be injected into the main pulmonary artery and will demonstrate the size of the left atrium, movement of the valve leaflets, and the prolonged opacification of the left atrium. If mitral insufficiency is suspected, contrast media can be injected into the left ventricle, rotating the patient in the right anterior oblique position and then estimating the amount of regurgiated media. In aortic stenosis, contrast injection is not so important since the valve gradient is easily obtained, but injection into the left ventricle would detect the rare case of subaortic stenosis. Contrast media can be injected 2 cm. above the aortic valve in order to estimate the amount of aortic insufficiency. One occasionally may also see the coronary arteries from this injection.

Another challenging aspect of acquired heart lesions is coronary artery disease. Everyone would agree that prevention is the solution to the problem, but maybe in the future there will be isolated indications for surgical treatment when coronary lesions are detectable.

It is not simple to demonstrate the coronary arteries radiographically. When one considers that the blood flow through the ascending aorta is at the speed of 100 to 150 cm. per second, one can appreciate how rapidly a small amount of radio-opaque medium can be swept away from the coronary ostia. But using thin walled catheters with multiple side holes, pressure injector syringes, and contrast medium heated to lower viscosity, one can get a sufficient quantity at the coronary ostia to make the studies successful.

Arnulf uses transient cardiac arrest produced by acetylcholine.[13] The prolonged diastole improves coronary visualization. Another method is described by Dotter, visualizing the coronary circulation by occlusion aortography.[14] A double lumen catheter is used in which one lumen connects to a latex balloon inflated with nitrous oxide or cardon dioxide in the ascending aorta. With the aorta occluded, contrast media cannot be swept away, thus giving excellent coronary visualization. It is difficult to keep the inflated balloon in the ascending aorta since this tends to be propelled distally. Also the tremendous increase in intra-aortic and intraventricular pressure could be quite dangerous.

Sones has visualized the coronary arteries in over 100 patients by using cineangiocardiography.[12] He manipulates a Rodriguez Alvarez catheter so that the tip is lying in the right or left sinus of Valsalva near the coronary ostia, making sure that the pressure is not damped and that he has not entered the coronary artery. Positioning the patient 30 to 40 degrees LAO the left main, circumflex and anterior descending coronary arteries are best visualized avoiding the superimposition of the spine. Twenty-five mls. of 90% hypaque are injected in this sinus under a pressure of five kilograms per centimeter square. With the catheter in the right sinus a similar injection is made 60-70 degrees LAO. At the present time he is working on another technique in which a small catheter is manipulated approximately one-half inch inside the coronary artery and requires only 3 to 7 mls. of contrast media to be injected by hand into the coronary artery. He thinks that by this method the best visualization is obtained.

With the development of a reliable technique in demonstrating coronary vessels new opportunities arise for further investigations of coronary artery disease.

Summary

The diagnostic approaches to acquired heart lesions are discussed, elaborating on catheterizing the left ventricle by passing the catheter retrograde across the aortic valve.

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49% of Aged Covered

Forty-nine per cent of all Americans 65 years of age or older have health insurance, Health Insurance Association of America reported.

It is estimated that by 1970 some 90% of the aged *who need and want* this protection will have it. Of the 15.7 million in the 65-and-over age group, an estimated 7.7 million had health insurance on January 1, 1960.

The analysis, first of its kind made on a nationwide basis since early 1958, was based on coverage trends revealed in government and private surveys and on developments in the health insurance business.

Growth of health insurance protection among the elderly during the past eight years has been at a more rapid pace than for the population as a whole. In 1952, one of four senior citizens had health insurance. Now one out of two are so protected. Over the same period, growth in coverage for the total population was from nearly six out of 10 to a little more than seven out of 10.

In addition to the 49% of the 65-and-over who now have health insurance, another 15% (2.4 million) are officially classified as indigent, and provision is made for their medical needs through Old Age Assistance.

MEDICAL  CENTER

Message from the Dean

Just as a tree or shrub needs three elements—climate, space, and nutriments—for its proper growth and development, there are three similar elements in the proper growth and development of an institution such as the University of Oklahoma Medical Center. And just as a tree or a shrub will become stunted or mis-shapen and poorly developed if any of the elements are missing, there will be an imbalance in an institution if there is not an adequate supply of the three requisites.

The academic and professional climate is excellent and will probably continue to be if other elements are provided.

The University of Oklahoma Medical Center has reached the point of diminishing return in a more intensified use of its physical space, both within the existing buildings and in the land area available for future buildings. The land for the University portion of the Medical Center has been decreased by allocations to the Oklahoma Medical Research Foundation and the Veterans Administration Hospital. The inevitable further crowding of the University portion will also affect the operation of the other components.

Large portions of the existing space in the present hospital buildings are no longer suitable for use as a teaching hospital. The cost of converting them to modern hospital facilities would be very considerable, but they are adaptable to other Medical Center uses, providing new hospital areas are constructed. The existence of two separate hospital buildings has always hampered the efficiency and economy of operation. The logical answer is the construction of a modern teaching hospital, designed and equipped for this specialized purpose. Such a facility intensifies the need for additional campus.

With the exception of the student nurse dormitory, the University of Oklahoma Medical Center has not been provided with housing or recreational facilities for Medical Center students. Dormitories, too, require land for site and service areas. These, and similar problems, make the acquisition of additional land, contiguous to the Medical Center, a top priority project.

The proper nutrition for the Medical Center is an adequate operating budget to provide reasonably competitive salaries, modern equipment, and adequate supplies for the operation of the School of Medicine, School of Nursing and the University Hospitals. This element for growth and development has been insufficient for the Medical Center. Competition for the too limited supply element is exceedingly great among the institutions and agencies in Oklahoma. If the Medical Center is to receive its needed share, friends of the institution must see that many of our citizens are properly informed as to the needs and the importance of fulfilling them, and thus prevent ramifications of inadequate health care for the future citizens of Oklahoma. The Alumni Association of the School of Medicine has recently prepared a comprehensive recommendation on this subject which will be made available during the coming months.

Mark R Everett

Medical Grand Rounds

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Doctor Bert Sears: Our patient is a 69 year old white male retired shoe salesman, whose first admission at the University of Oklahoma Medical Center was on 1-19-59, with the chief complaint of weakness, swelling and pain in the joints, and swelling in the hands, face and feet of one month's duration. Approximately one month prior to his admission the patient had noticed the onset of swelling and redness around both eyes. This was followed in the next few days by swelling and inability to bend the right knee. He then developed mild arthralgia of the ankles, and noted some pain on movement of the shoulder, elbow and wrist joints. About two weeks prior to his admission he began having some difficulty in swallowing solid foods and he developed a cough which was productive of one to two cups per day of thick whitish sputum. Also, about two weeks prior to admission, he became aware of orthopnea which progressed to the extent of using four pillows for sleep by the time of admission. During this two to three weeks, he ran a low grade temperature, said to have been no higher than 100 degrees, and he had been told by a physician that he had protein in his urine. The pertinent past history included "chronic sinusitis" which he dated to sometime in his twenties, manifested by rhinorhea, post nasal drip, and frequent sneezing in the summertime. There was also a history of frequent "hives" and rashes, sometimes associated with the ingestion of strawberries and tomatoes. He had developed a morbilliform rash in 1952 after receiving a penicillin injection. He told of having a myocardial infarction in 1952 which was treated by six to eight weeks of bed rest and from which he recovered uneventfully. The Review of Systems was not otherwise remarkable except for occasional exertional dyspnea, and some swelling of the legs and feet which he attributed to standing for long hours.

Physical Examination: Physical examination on admission showed a blood pressure of 120/70 mm Hg, a pulse rate of 120 per minute, a temperature of 100.2° F., and a respiratory rate of 18 per minute. He was well developed and well nourished, but appeared moderately acutely ill. He spoke with a wavering voice, but with adequate articulation. The eyes exhibited bilateral periorbital edema, conjunctival injection and increased lacrimation. The pupils reacted normally. The fundi showed attenuation of the

arterioles, with cytoid bodies along the upper nasal arteriole in the right eye and some exudate in both fundi. There was hyperemia of the nasal mucosa, sublingual mucosa and pharynx. The chest was symmetrical with equal expansion bilaterally. Moist rales were heard in both lung bases posteriorly. Examination of the heart showed a regular rhythm at 120 per minute, no cardiomegaly, and a grade 11 early systolic murmur at the cardiac apex. The liver was palpable 2 cm. below the right costal margin and was smooth and nontender. On examination of the back, presacral edema was noted. The hands and shoulders were noted to be weak and a course tremor of the hands was noted. There was moderate pitting edema of both hands and feet, and there was increased warmth over the wrists, elbows and knees but no obvious hydrarthrosis or erythema. The peripheral pulses were normal except for the popliteal and dorsalis pedis pulses which were diminished bilaterally. Neurological examination was normal.

Laboratory Data: The white blood count was 11,900/mm^3 with 65% neutrophils, 30% lymphocytes, 1% monocytes and 4% eosinophils. The hemoglobin was 13.1 gms.%, the hematocrit 47%, the erythrocyte sedimentation rate 36mm/hr. (Wintrobe), and the serological test for syphilis was negative. Subsequent hemograms consistently showed a leukocytosis of between 10,000 and 17,000, usually with a normal differential count but occasionally with a shift to the left. A total eosinophil count was 300/mm.^{3} During the hospitalization, the hemoglobin fell to 8.7 gms. and the hematocrit to 32%. The red blood cells were thought to be normocytic and hypochromic and some basophilic stippling was noted on peripheral smear. Two bone marrow examinations were nondiagnostic. The serum iron was 73 micrograms %, two Coombs tests were negative, and a red blood cell survival time was within normal limits. The BUN was 21 mg. %, and the admitting urinalysis showed a positive protein reaction and 8 to 10 fine granular casts per high power field. Repeat urinalyses showed persistence of the proteinuria, casts and white cells. PSP excretion was 13.5% in 30 minutes, and on a Fishberg concentration test, the maximum specific gravity obtained was 1.018. Creatine excretion was 0.2 gms. per 24 hours and creatinine excretion was 0.7 gms. per 24 hours. An intravenous pyelogram showed poor excretion of dye bilaterally but was otherwise normal. Urine cultures were positive for paracolon bacteria on three occasions, and a needle biopsy of a kidney was nondiagnostic. Liver function tests showed a total serum protein of 4.5 with an albumin of 2.3 gms. %. The thymol turbidity was 12 units. There was 15% retention of BSP dye in 45 minutes, the cephalin flocculation was 4 plus in 24 hours, the alkaline phosphatase was 4.7 Bodansky units and the prothrombin time was normal. The serum glutamic oxaloacetic transaminase was 110 units. Peritoneoscopy was performed and was considered to be normal. A biopsy of the liver showed only marked fatty change. A chest x-ray taken on admission showed a patchy infiltrate at both bases and a right pleural reaction, and a subsequent chest film showed a small amount of fluid in the right pleural space. A thoracentesis was productive of 130 cc. of clear yellow liquid with a specific gravity of 1.011, and a total protein of 2 gms.%. Cytologic study of this fluid was negative for malignant cells. Bacteriologic studies, including those for acid fast organisms and fungi were negative on the pleural fluid, sputum and gastric washings. PPD No. 2 skin test was positive, and a pleural biopsy showed "chronic pleuritis." An electrocardiogram showed an old inferoseptal and postero-lateral myocardial infarction with peri-infarction block. Serum electrolytes were normal, as were calcium and phosphorous determinations. Six slides for the demonstration of "L.E." cells were negative, as were two attempts to demonstrate Bence-Jones protein in the urine. A latex agglutination was reactive on one occasion and not on another. Urine examinations for lead and arsenic were within normal limits. Most of the stool examinations for occult blood were positive. Blood cultures were negative. A skin muscle biopsy taken from the thigh was reported to show slight chronic inflammation around the blood vessels and some degeneration of the fibrous tissue in the deeper portion of the skin.

Hospital Course: He was initially treat-

ed with bed rest, low sodium diet, and digitalization which resulted in a substantial weight loss. His temperature spiked daily to about 100° F. during the first two weeks of hospitalization after which time it subsided spontaneously and remained normal throughout the remainder of his hospital stay. Following admission the patient developed considerable muscular weakness which became so marked by the end of the fourth hospital week that he was unable to get out of bed or even lift his legs off the bed. Prednisone therapy was started during the second hospital month, and following this, he experienced a gradual increase in strength, and by the fourth hospital month he was walking with the aid of a cane. Also, by the fourth month, the rales in the lungs had disappeared and the hemoglobin had returned to 10.7 gms.%. The abnormal shadow noted on the chest film progressed through the first two and a half months then regressed. He was discharged at the end of the fourth hospital month taking 15 mgs. of Prednisone and 1 mg. of digitoxin daily and ferrous gluconate. In the clinic, an attempt was made to decrease his meticorten. When it was dropped below 10 mgs. per day, he experienced a recurrence of weakness and edema of his legs and feet. At the present time, he is still being followed in the clinic and presents no laboratory or clinical findings significantly different from those previously mentioned.

Doctor Wyman Ewing: We have films of barium enema, upper GI series and skull films, all of which are completely normal. The chest films, of course, are of greatest interest. On the first film the heart was noted to be at the upper limits of normal in size, and there was a bilateral lower lobe pulmonary infiltrate. This infiltrate progressed and during the third hospital week, we noted that it was slightly more extensive, and at that time we noticed air beneath the diaphragm on both sides with some collapse of the lungs. The costophrenic angles were obliterated, suggesting the presence of fluid. Again the heart was noted to be at the upper limits of normal. I presume that the air beneath the diaphragm was due to the peritoneoscopy, since it correlates in time. In any event, this was not present on the next film. Films obtained during the ninth hospital week show that the infiltrate in the right lower lobe was much more dense, and had the appearance of an almost solid mass which may represent fluid or pleural reaction; the left lung was clearing somewhat on this film. The film obtained during the fourth hospital month shows almost complete clearing of both lungs. The last film we have was taken six months following discharge and we again see that the lungs were almost completely clear except that we do notice a slight patchy infiltrate near the costophrenic angle. The heart has, through all these films, varied somewhat in its size, but generally, has remained at the upper limits of normal.

Doctor Stewart Wolf: Doctor Ridings, have you any comment?

Doctor R. Ridings: I really can't add too much specific except that certainly on the later films and somewhat on the early films, this was not a generalized pulmonary affair. Both times it was limited to lung bases which could be related to heart failure, of course, but is not at all typical because the pulmonary vessels in the upper lobes look normal. In the later films, it certainly appears to be infiltrate rather than vascular.

Doctor Wolf: Would you comment further on the renal biopsy, Doctor Ginn?

Doctor Earl Ginn: The sections from the renal biopsy showed a slight thickening of the small vessel walls and also very mild thickening of the glomerular basal membrane. These changes were non-specific and there was nothing diagnostic on the renal biopsy. There was one very small area in the biopsy that had looked like an inflammatory reaction. The patient could have pyelonephritis and we have missed the major pyelonephritic area with the biopsy needle.

Doctor I. Snapper: The history, the physical examination and the laboratory data which have been presented all point to the presence of dermatomyositis. In this respect, especially the periorbital swelling and redness, both frequent occurrences in dermatomyositis, must be emphasized. Just as in the case in today's patient, the peri-

orbital discoloration often spreads over the rest of the face, sometimes even over the neck and the trunk. Ultimately, the color changes to a violet of heliotrope hue. In modern times the designation "lilac disease" is often used instead of the old term dermatomyositis.

A second strong point in favor of the diagnosis of dermatomyositis is the presence of cytoid bodies in the eye fundus. These so-called bodies occur not only in dermatomyositis but also in lupus erythematosis, occasionally even in polyarteritis. The designation "cytoid bodies" should be used only if yellowish fluffy lesions are discovered, situated *anteriorly* to the blood vessels. All other retinal exudates are located posteriorly to the vessels. In addition, there is also a histological difference. Cytoid bodies are degenerated proliferating nerve fibers.

The waxing and waning infiltration of the right lower lobe, the weakness of the vocal cords, of the pharyngeal muscles, of the skeletal musculature and of the myocardium are all frequent manifestations of dermatomyositis. If possible, a final confirmation of the diagnosis should be obtained by a muscle biopsy. In dermatomyositis multiple lesions of the musculature are found but no truly *generalized* muscular disease is present. It is, therefore, necessary to choose carefully the location where the biopsy should be done. In the muscles underlying a skin lesion are clear cut pathological changes most likely to be found. As a matter of fact, the discoloration of the periorbital area is connected with the frequent involvement of the eye muscles. If no cutaneous lesions in the form of erythematous patches, erythema nodosum or erythema multiforme are present, then the biopsy should be performed in a muscle group which is hard and indurated. In this patient the biopsy was done in the quadriceps muscle. However, on palpation the musculature of the thighs does not seem to be indurated, whereas the calf muscles are very hard indeed. A biopsy of the musculature of the calf might well be revealing.

In dermatomyositis, as is the case in all degenerative and inflammatory diseases of the musculature, the urinary excretion of creatine is increased: usually more than 400 mgs. of creatine are excreted daily. The elimination of 200 mgs. of creatine, as present in this patient, does not exclude the presence of dermatomyositis, but decidedly does not favor this diagnosis. It must, however, be stressed that the colorimetric determination of creatine and creatinine in the urine is very poor indeed. Errors can easily occur. In addition, it is of importance that this patient eliminated on the day of the experiment only 0.7 grams of creatinine. This low value could indicate that the total 24 hours urinary output was not collected. However, in dermatomyositis, the urinary creatinine may be decreased because part of it may be excreted as creatine.

Unless this value of 200 mgs. is found repeatedly on consecutive days, the relatively small quantity of creatine present in one urine specimen should not be accepted as a strong point against or for the diagnosis of dermatomyositis. Special mention must be made of the atrophy and lack of elasticity of the skin of this patient which is highly reminiscent of scleroderma. This finding is far from inconsistent with the diagnosis of dermatomyositis. Actually, many clinicians consider that both diseases are identical. I too have frequently seen patients who were suffering from both scleroderma-like changes of the skin and concomittantly, from hardening of special muscle groups. However, until now I have only once been able to find a patient in whom the biopsy of the skin showed the presence of scleroderma, and the biopsy of a muscle the presence of dermatomyositis. All the other patients, even if clinically apparently suffering from a combination of scleroderma and dermatomyositis, always had either scleroderma or dermatomyositis.

Not only does the consistency of the skin of patients with dermatomyositis ultimately stimulate sclerodermatous changes, subcutaneous calcification which is so frequent in scleroderma, is also found in dermatomyositis. In children the subcutaneous calcinosis sometimes involves the whole surface of the body. Ultimately, these unfortunate children are completely incarcerated in a shell of calcium phosphate.

I would therefore conclude that in our patient with a heliotrope discoloration of the skin of the face, cytoid bodies in the fundus, weakness and induration of many different muscle groups, the diagnosis of dermatomyositis is mandatory.

Doctor John Schilling: Does this polymyositis involve the diaphragm and could this in any way be related to adjacent pleural and pulmonary reaction, or are these lung changes the pulmonary parenchymal components of the disease?

Doctor Snapper: If the myositis of the diaphragm would have caused the infiltration of the right lung, then the muscular disease would be only localized in the right, not in the left leaf of the diaphragm. This does not seem probable. Anyway, infiltration of the lung due to perivascular infiltration and even fibrinoid degeneration of the collagen fibers of the lungs is a frequent occurrence in dermatomyositis.

Doctor W. O. Smith: I saw this patient during his first few months in the hospital and at that time we were concerned with his renal disease and considered polyarteritis.

Doctor Snapper: Polyarteritis, lupus erythematosis and dermatomyositis form one group of vascular diseases in which many of the pathological findings are caused by the formation of auto-antibodies. As a matter of fact, at one time, these diseases were considered to be identical and to represent only different variants of one underlying allergic syndrome. The clinical separation of these three syndromes was restored only after Hargraves in 1947 discovered the presence of specific lupus cells in lupus erythematosis. It follows that in many cases it may be difficult to distinguish between these three diseases. I must repeat that the heliotrope discoloration of the periorbital area of the face, the cytoid bodies and the degeneration of many groups of musculature practically prove the diagnosis of dermatomyositis.

The chameleonic character of the symptoms and signs of polyarteritis is the reason why this diagnosis is made *too* often as an act of despair in mysterious cases which offer a seemingly insoluble diagnostic problem. The following symptoms and signs represent the characteristic manifestations of polyarteritis.

1. Leukocytosis, combined with eosinophilia
2. Hypertension
3. Splenomegaly
4. Abdominal colic
5. Polyneuritis

In my experience the diagnosis of polyarteritis should never be made unless at least two, better still three, of these five manifestations are present. Since this is not the case in our patient, I would not be inclined to consider the presence of polyarteritis.

Doctor Wolf: A question that I'm sure is in the minds of many here is the possibility of a relationship between dermatomyositis and an undetected carcinoma, particularly in view of the recent pulmonary infiltrate. Would you discuss the relationship of dermatomyositis to carcinoma in general and give us your thoughts?

Doctor Snapper: The incidence of malignant tumors in dermatomyositis has been observed by so many observers that the connection between the two diseases cannot be due to coincidence alone. In total, about 100 cases of this coincidence have been published. Whereas most authors are of the opinion that in 5 to 18% of patients with dermatomyositis a neoplasm develops, this coincidence occurred in one series in six of 14 patients. The neoplasm can be found in any organ of the body, lung, esophagus, stomach, colon, rectum, kidney, liver and gallbladder.

Even more interesting is a possible improvement in the different manifestations of dermatomyositis following the removal of the malignant tumor. However, Talbott and Moleres Ferrandis, in their excellent monograph on Collagen Diseases, after careful analysis of the literature, doubt whether this generally believed relationship between the two diseases actually exists. Under the circumstances, further carefully controlled clinical observations seem to be highly desirable.

Doctor Wolf: Is it not true that difficulty in swallowing is a very common feature of dermatomyositis and not of polyarteritis?

Doctor Snapper: In dermatomyositis, degeneration and inflammation of the musculature are especially localized in eye muscles, muscles of the trunk and of the proximal part of the extremities, also in the pharyngeal, laryngeal and cardiac musculature. Difficulty in swallowing is, therefore, commonly found in dermatomyositis though not as frequently as in scleroderma. However, in scleroderma the dysphagia is usually the only manifestation of involvement of the musculature whereas in dermatomyositis nearly always many different muscular groups are involved.

Digressing for a moment, another remarkable form of dermatomyositis may be mentioned. This form of dermatomyositis starts as a peracute fulminant ulcerative colitis with wide spread ulcerations of the skin of the lower abdomen, perineal and perivaginal areas. In these patients slight rubbing of the skin results in the sloughing of large pieces of epidermis.

Doctor Wolf: We don't often present an open and diagnostic problem at these conferences but today we were particularly privileged to have had with us a man who has had one of the richest experiences in medicine, not only because of his background and astuteness in the great bedside tradition in medicine, but also because of his own pioneering work in biochemical thinking and biochemical studies in disease mechanisms. I'm sure that our own concept of dermatomyositis and "collagen disease" in general has been enriched and broadened by your visit with us today. Thank you, Doctor Snapper.

800 N.E. 13th, Oklahoma City, Oklahoma

ABSTRACTS

Amenorrhea and Elevated Level of Serum Cholesterol Produced by a Trifluoromenthylated Phenothiazine (SKF 5354-A)

M. L. CLARK* and P. C. JOHNSON**

J. Clin. Endocrinology & Metabolism, 20: 641-646, April 1960

The administration of 1 gm. per day of trifluorinated phenothiazine (SKF 5354-A) resulted in amenorrhea in 6 of 7 female patients, without a rise in urinary gonadotropin excretion. The drug also produced a rise in the serum cholesterol level. There was a slight depression of 24-hour thyroidal I^{131} uptake, but not sufficient to account for the increase in serum cholesterol concentration.

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The Erythropoietic Factor in Hypoxic Patients With Emphysema Without Secondary Polycythemia

WALTER H. WHITCOMB,* ROBERT M. BIRD,** PHILIP C. JOHNSON,*** JAMES F. HAMMARSTEN,**** and MARGARET MOORE*****

A.M.A. Arch. Int. Med. 103: 871-5, June 1959

Experiments are presented which indicate that the plasma from patients who are hypoxic as a result of pulmonary emphysema but who have not developed secondary polycythemia contain quantities of erythropoietin greater than that seen in normal subjects.

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The Incidence and Significance of the Leukemoid Reaction in Patients Hospitalized With Pertussis

JACK D. WELSH,* WILLIAM F. DENNY,** and ROBERT M. BIRD***

South. Med. J. 52: 643-9, June 1959

1. The incidence and significance of the leukemoid reaction in pertussis have been compared in two groups of patients. The first group consisted of 47 hospitalized patients seen between 1933 and 1943; the second, 127 patients admitted to the hospital since 1951.

2. There was found to be no significant difference in the incidence of the leukemoid reaction between the two groups. There was, however, a significant decrease in the incidence of complications and in the mortality rate in the group seen between 1951 and 1956. This improvement was seen almost exclusively in those patients not manifesting a leukemoid reaction.

3. In those patients whose leukocyte count was in excess of 50,000 per cu. mm., however, complications appeared with similar frequency in both groups and the mortality rate was not significantly different between the two.

4. It is inferred that the development of a leukemoid reaction in pertussis is of increasing importance in predicting a poor prognosis.

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Following Massive Transfusions The Problem of Hemorrhage

ROBERT M. BIRD* and JAMES F. HAMMARSTEN**

South. Med. J. 52: 887-9, Aug. 1959

1. Oozing may complicate conditions which necessitate massive blood replacement (i.e., greater than 2 500 ml. of whole blood).

2. The basic disease or the nature of the surgical procedure are of major importance in the pathogenesis of the oozing.

3. Blood replacement itself is not the sole cause of the hemorrhagic complication. Varying defects in the clotting mechanism have been demonstrated. The most common of these are low platelets, decreased fibrinogen and accelerator factor deficiencies.

4. If oozing develops and is thought to be associated with the transfused blood, it seems advisable to limit additional blood to that which is reasonably fresh and which has been collected in nonwettable containers. Specific defects should be treated when these are recognized. Human albumin solution may be of considerable help as plasma expander if used with other appropriate measures.

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Effects of Gastric Juice Fractions on Uptake Of Labeled Vitiamin B-12 by Rat Liver Slices

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Proc. Soc. Exper. Biol. and Med., 101: 336-340, 1959

Gastric contents from two subjects without pernicious anemia have been chromatographed on an IRC resin column. Five more or less well defined protein peaks appeared in the effluent. Each peak was capable of enhancing uptake of Co-60 Vitamin B-12 by the rat liver slice. Prior to fractionation and after these gastric fractions had been reconstituted, these gastric juices only produced inhibition of Co-60 Vitamin B-12 uptake by the rat liver slice at all concentrations tested. The effluent of these chromatographic separations of human gastric content produced three Co-60 Vitamin B-12 binding peaks. Destroying proteolytic activity of the gastric juice decreased the binding of one of these protein peaks but did not change the results with the liver slice. The enhanced uptake on the rat liver slice produced by these gastric juice fractions did not seem to be related to proteolytic activity or to their ability to bind Vitamin B-12.

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Effect of Prolonged Thyroid Administration on Aged Male Rats

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Nature 184: 1149-50 (1959)

Male rats (400 gm.) were orally administered purified thyroid extract (Proloid) from 12 months to sacrifice at 21 months in three daily dosage series equivalent to 14, 60 and 240 mgm respectively for a 70 kgm. human. At necropsy all principal organs were grossly examined and routinely processed by the paraffin method after neutral formalin fixation. Sections were stained histochemically for neutral and acid polysaccharides and histologically for reticular, collagenic, and elastic connective tissues. Sections were then compared with untreated control sections and with each other as well as with sections obtained from I^{131} induced hypothyroid rats. Detailed examinations revealed that other than expected toxic alterations in the 240 mgm series there were no consistent pathological architectural variations in the connective tissues of these animals, in the vascular structures and in the general epithelial tissues. It would appear that induced hyperthyroidism under the conditions of this experiment has little effect on these tissues in the aged male rat.

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Special Article

The Structure of the American Way of Life*

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YOU HEAR a lot of people today asking: "What *is* the American way of life?" Some people say you can't define it; that it's an abstract term. The Socialists and Communists, who are trying to lead us away from the basic principles of the American way of life, make quite a point of the fact that there is a considerable difference of opinion on the question of what it is.

So let's build our own version of the American way of life, and submit it to our friends and neighbors as a good definition, one that can be accepted by all Americans. Did you know that the founders of America, when they came here from England seeking freedom and a better way of life first established a communal, or collectivist, economic system such as Communism creates? They did, both at Jamestown and Plymouth Rock.

Let's send our mind's eye back to Plymouth Colony. In December of 1620, 101 pilgrims from England reached the Atlantic Coast in the *Mayflower*. Their primary purpose in risking the great hazards of an Atlantic crossing and life in a primitive unknown land was to gain religious freedom for themselves.

They had no preconceived ideas about building a nation, a society, or a system of economics.

By common consent the colony's economic system was communal. The property was community property, or public property; owned in effect by the colony's government. The people worked together at assigned tasks. They shared and shared alike in the total production of the colony.

There was a common storehouse. Each family brought all its produce of whatever kind to the storehouse. The government of the colony allocated the goods on a basis of equal shares for all. This was the Christian spirit of sharing. Our forefathers were people basically motivated by Christian principles. Many of them felt that they could best progress under this communal economic arrangement and have full freedom also. They thought they had an ideal economic system.

Even among these dedicated Christians, however, with their great measure of freedom, the theory of government ownership of property, and communal living did not work in practice.

A few of the less industrious colonists discovered that no matter how little they produced and carried to the common storehouse, they still received a share equal with their neighbors! They began to loaf and shirk their duty. The industrious, seeing they were being made to support the slothful, began to slow down also. Well, as one family after another eased up on their work and

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the production of vegetables, grains and meat, the goods in the storehouse dwindled. In time, starvation threatened to wipe out the colonists.

The leaders of the colony despaired of their communal experiment. Instead of providing plenty for all, the collectivist system had produced only an equal distribution of poverty and stagnation instead of progress. Something had to be done to restore the energies of the colonists.

Either a way must be found to stimulate work and production through voluntary willingness of everyone, or the colonists would have to resort to the type of coercive measures, based on force. which had been a part of human history for thousands of years. The Plymouth colonists did not want to force their labor with police power. That was one way of doing it, but they believed that freedom was a Godly heritage for all mankind, and they had fled from the old to the new world seeking this freedom.

So when the communal or collectivist system carried them toward starvation, the governmental and religious leaders together proposed the establishment of the basic law of *private property* and the fundamental principle of *self-reliance*. This was approved by the people in Jamestown as well as in Plymouth Colony. Did it change things for the better? It certainly did! The change in ownership and responsibility from government to the individual citizen marked the beginning of progress in the colonies. The new economic system helped the new world to progress and expand.

But in time, as the colonies prospered, Great Britain applied heavy taxation without the consent of the Colonists, harsh laws restricting freedom, and finally military rule. The Colonists rebelled, the Declaration of Independence was written and signed, and war for Independence followed. After their victory, the Colonies began to shape up their way of life.

Fundamental Belief in God

The great keystone foundation for the new nation's structure of freedom was faith in God. The founding families were Christian people. A belief in God was the central motivation of their lives. The desire for spiritual freedom was a powerful factor in their coming to this new world. The way of life which they began to build had God and God's pattern for mankind as its great foundation. So this was the keystone of freedom.

But in the structure of a nation's government, freedom has to be spelled out. It must be woven into the very governmental structure itself or there is danger of losing it.

With the end of the Revolution, the American people established the Articles of Confederation under which the 13 independent states operated. But there were many serious weaknesses. Lacking prestige abroad, the central government had little power to enforce treaties with other nations, no power to levy taxes and no power to regulate commerce. Many people felt that they needed a dual Republic—with state governments that were almost sovereign, and yet with a central government to give them prestige and power abroad, and cohesiveness at home.

George Washington was one of the first to recognize this necessity and he invited a group of Virginia and Maryland delegates to his home at Mount Vernon in 1785. This was the beginning of informal talks which led, two years later, to the Constitutional Convention in Philadelphia, and ultimately to the second great foundation of our way of life.

The United States Constitution

Twelve of the thirteen colonies sent delegates to the Constitutional Convention. One of them, James Wilson of Pennsylvania, observed: "For the first time in six thousand years of human history, men have come together to deliberate and peacefully resolve what their government shall be."

The delegates were moderate and conservative men. They were truly great men of their times, selected for outstanding intellect, integrity, and love of country.

Their deliberations were not smooth. Great arguments ensued and many stubborn issues were settled in "give and take" compromises.

In its final form, the Constitution was truly the product of centuries. As the great legal anchorage for the American way of life, it provided the base for the political and economic rights of mankind.

Political Rights

Let's build upon this base, therefore, our American political rights. First, the *right to worship God in one's own way.* It is difficult, I know, for the average American to conceive of a people not having religious freedom. And yet it did not exist in the world of 1620, when Plymouth Colony was established on the Atlantic Coast. And in many parts of the world today it does not exist. We Americans must realize how truly priceless is this freedom of worship. It is the greatest of worldly gifts.

Secondly is *the right of free speech*—the freedom to write what we wish in a free press; to say what we wish to say in a public forum or to our neighbor. Why, we can severely criticize the highest officials of our government if we wish. Or, we can disagree with the critics, if we wish. It's a wonderful freedom, isn't it!

There is an exception, however, in the right of free speech. The exception is treason against the United States. Our laws do not protect people who advocate and teach the overthrow of our Government by force and violence. Such people are subject to indictment for violating the provisions of the Smith Act. The trial and conviction of the 11 Communist leaders in New York, for teaching and advocating the violent overthrow of the United States government, stamped Communism in America as a treasonable conspiracy. Our great freedom of speech must not be used to overthrow the government that grants the freedom.

Next is the *right to assemble.* Even the Communists can assemble openly and lambast our form of government—so long as they do not utter their intent, the overthrow by force. Wherever totalitarian governments rule, freedom of assembly does not exist. That means today nearly half the world's people do not have this freedom.

The right to petition for grievances. Isn't it a great privilege that here in America a solitary citizen can challenge his government for grievances? It's done every day. And we have recourse to the courts of the land on any grievance, against anybody.

The right to complete privacy in our own homes. Here again the great principle of private ownership prevails. What is ours is ours, and not even the lofty power of the Federal government can force its way into our home without a search warrant given by the courts for proper causes.

The right of habeas corpus is another great personal right against oppressive government. It prevents our imprisonment beyond a few days unless charges against us have been held justifiable in proceedings in an open court.

The right to trial by jury. Both in the American legal code and in the moral ethics of American life, a man is innocent until he is proved guilty; and he has the right to a trial by jury.

Another great privilege that so many of us Americans take for granted is *the right to move about freely.* Those who have traveled abroad in Europe and Asia know that restrictions and red tape keep you involved constantly with the authorities. The people of countries within the orbit of Communism are afraid to ask for travel permits. In these countries fear lives constantly in the hearts of the people, every hour of the day and night.

And, lastly, among the political freedoms, the right of franchise, *the right to vote freely for the candidates of our choice.* This is more than a right. It is a sacred responsibility of citizenship. If enough Americans neglect it, the right to cast our ballot on election day for whomever we choose will be taken from us. This is a fundamental, a priceless right.

And so we have, in our structure of the American way these political rights. Now let's build on them our economic rights.

Economic Rights

The right of the private citizen to own property is as basically a part of the American way of life as is freedom of worship. If we didn't have this right, we couldn't

have our independence, and thus we would not be free.

And, *the right to work where we choose.* In America we can be an auto mechanic, or a dishwasher, or a lawyer, or an employee in an industrial plant or department—whatever we wish to be. We don't have a commissar or a government bureaucrat assigning us to jobs we may not want—as do the people of Socialist and Communist countries.

The right to bargain collectively with employers. Men and women can come together in unions in America, gaining economic bargaining strength and retaining all the rights that an individual has in relationship to his employers.

The right to go into business risking our capital in an enterprise of production or service. This is the freedom that has made America so materially great.

Coupled with our *right to opportunity,* this freedom to go into business has nourished ambition, enterprise, initiative. It has made America the industrial giant of the world, producing almost as much as all the other nations combined, giving Americans twice as high a living standard as any other people on earth.

The right to seek a profit or sustain a loss, depending upon our ability to manage. Having the freedom to go into business doesn't mean that you automatically succeed. To succeed in the competitive system, you must please your customers and at the same time make a profit.

The right to save is a vitally important right. It has permitted the accumulation of surplus funds which provided the capital for all the growth in America, from the days of Plymouth Colony to the present.

The right to compete; to offer our goods and services in a free market. Competition is the dynamo of the free market. You bake a loaf of bread and sell it for what you can get in competition with other bakers. That's the free market. And in it, the consumer is the boss. If the bread is priced too high, the consumer will bake her own bread at home. This keeps the producers on their toes, makes competition keen, and, in the end, drives prices lower.

The right to contract about our affairs. You can contract to give your services to someone for a cash consideration; or you can contract to purchase the services of someone else. Or you and I can sign a contract committing ourselves to do just about anything we can think of—within the law.

The Government Role

And, over these political and economic rights we have a disciplining force that becomes effective when any of us has an impulse to overstep the legal or moral boundaries of fair play—and some of us occasionally do. We have our structure of disciplining laws and governmental agencies to administer them.

Our Socialist friends say that government ought to become a participant in the economic life of our country, ought to own and operate the major industries. But, most Americans know that wherever this has been tried it has pulled nations down. Most Americans, I'm sure, feel that government's place in our economic system is that of referee, to administer the rules, or laws, in the game of American competition—and not to get into the game as a player. If government gets into the game as a player, it has every advantage over other players, and nobody can call its fouls.

So, these are the elements, the granite blocks in the structure of the American way of life. Here are the principles. Here are the rights and the implicit responsibilities that are fundamental in any structure for genuine human freedom.

American Way of Life

I ask you: Where else in all the world can you find such a combination!

Is this a complex system? Of course it isn't! Is the whole thing an abstraction? Is it confusing? No, it is none of these things.

It is the logical structure for human freedom, logical and simple in its operation. Can we all accept this structure, and thus be on common ground in upholding the simple rights and privileges built into it? I think we can, all of us.

PRESIDENT'S LETTER



The average doctor in Oklahoma has a full and busy life, day in and day out, meeting the demands of his profession in the care of the sick. Add the time which must be spent in keeping up with current medical literature, reasonable family commitments and just a little recreation now and then, and you have a man whose time is pretty well used to the fullest. Knowing this average doctor's schedule, I ask men to serve on various committees of our State Medical Association in a half apologetic manner because I know I am asking for some precious hours. A meeting of the Council or a session of the House of Delegates disrupts a Sunday in many homes, to me the most treasured day in the week, and I promise you that these meetings are not called unless believed to be absolutely vital to our organization.

The meeting of the Council on July 17, a Sunday, was necessary in the main to consider the proposal of the Public Welfare Department regarding payments for medical care of the aged who are eligible for payments from the Department. The meeting was well attended, discussion was lively, and carefully considered decisions were reached, all in spite of clumsy presiding by the chair. It has thus been necessary to call a meeting of the House of Delegates on July 31 for reconsideration of matters discussed at length by the Council and ultimate vote by the Delegates to establish the policy of the Oklahoma State Medical Association. These meetings are long and sometimes tedious but they are vital. I don't particularly like the complexities of the large organization which the Oklahoma State Medical Association has become. The best medical society meeting I have ever attended was in Clinton, Oklahoma, last April for a joint meeting of the Custer-Beckam-Dewey-Roger Mills county medical societies. This meeting was attended by twelve doctors with an attorney, Mr. Shepard of Oklahoma City, as the speaker and leader of the discussion that followed. In a meeting of this size everybody can exchange views freely and the men are reasonably well acquainted with each other. It must be from the nuclei of small societies like this that we get direction in the Council and House of Delegates meetings, because we do get the opinions of pretty clear thinking individuals without too much wrangling. The small county society is essential. The state organization is in turn necessary, and the AMA with its huge operations and hundreds of employees has become an authoritative voice for medicine in this country which we must support.

A physician whose opinions I thoroughly respect gave me great comfort after the last Council meeting when he said, "You know we sometimes go at these problems in curious ways but it seems that eventually we come up with the right answer." I sincerely believe this to be true.

Walter E. Brown, M.D.

Walter E. Brown, M.D.
President

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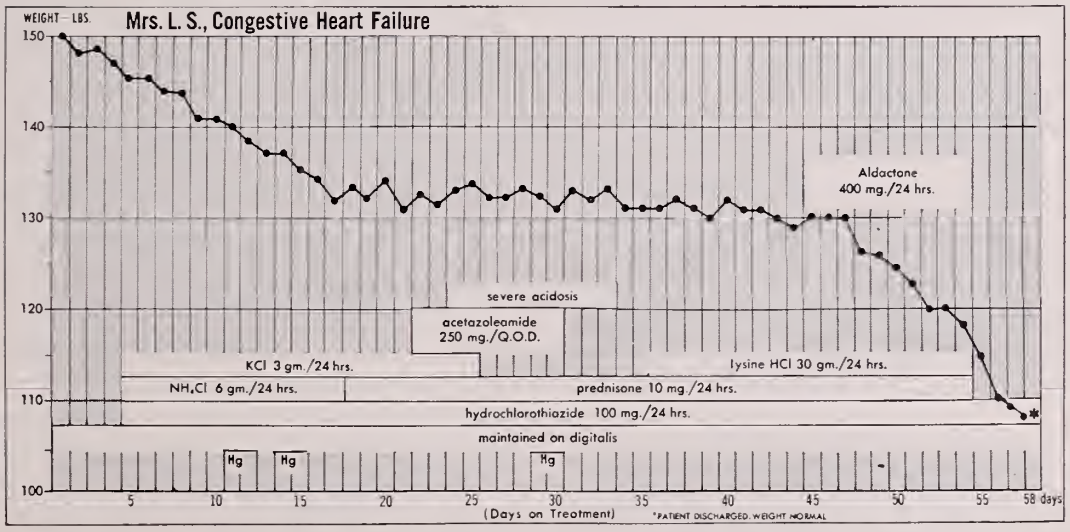
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News



President Walter E. Brown, M.D., presides at the Council meeting.

Council Meets In Special Session

Financial distress in the Department of Public Welfare Medical Care Program and two requests from the Oklahoma Osteopathic Association highlighted the proceedings of a special session of the Council of the Oklahoma State Medical Association on July 17.

Problems with Welfare

The physicians heard reports from Alfred T. Baker, M.D., Chairman of the OSMA Committee on Medical Care for Recipients of Public Welfare Assistance, and Mark R. Johnson, M.D., member of the Professional Advisory Committee to the Department of Public Welfare. According to the reports, the medical care program is now in financial straits as a result of a decrease in Federal matching funds which was, in turn, brought on by the transfer of welfare recipients to the Social Security rolls. Despite decreasing funds, the reports said, the cost of the program has largely remained unchanged.

Welfare Recommendations

The reporters, in speaking for their respective groups, recommended that the Oklahoma State Medical Association make certain concessions in its participation in the program, but only until such time as financial balance is restored. A counterpart gesture on the part of the Oklahoma Hospital Association had already received approval from its policy-making body.

In brief, the recommendations to the medical profession envolve the establishment of quarterly maximum fee allowances that a physician may receive for the care of an individual welfare recipient. Medical care identification cards are proposed for the patients, delineating such information as the dates of hospital admissions and the amounts paid out for each.

While the Council declined to take affirmative action on the proposal, it was agreed that the matter should be referred to the House of Delegates (a House of Delegates meeting has been called by President Walter E. Brown, M.D., for July 31).

Osteopaths

The Councilors also heard a report from the Council on Public Policy which pertained to two requests from the Oklahoma Osteopathic Association.

Representatives of the osteopathic association recently asked (1) that the OSMA recognize the propriety of interprofessional consultation between members of the two



Past-President Alfred T. Baker, M.D., left above, is shown presenting a commendatory resolution to Grady F. Mathews, M.D., former Commissioner of Health.

organizations, and (2) that the medical profession endorse the participation of osteopaths in postgraduate courses offered by the University of Oklahoma School of Medicine.

This matter was also referred to the House of Delegates.

Other Actions

In other actions, past-president Alfred T. Baker, M.D., presented a commendatory resolution from the OSMA to Grady F. Mathews, M.D., former Commissioner of Health; continued sponsorship of the Annual Essay Contest of the Association of American Physicians and Surgeons was endorsed; John W. DeVore, M.D., gave a comprehensive report on the 1961 White House Conference on Aging; and, the Council approved Doctor Brown's appointments of Ray M. Wadsworth, M.D., Tulsa, and Carlton E. Smith, M.D., Henryetta, to the professional advisory committees of the crippled children's program and the welfare medical care program, respectively.

Nicholson Re-appointed Editor

Finally, the Council unanimously approved the re-appointment of Ben H. Nicholson, M.D., as Editor of the OSMA Journal, as requested by the president. Doctor Nicholson's resignation had been previously accepted, but he had subsequently volunteered to be reinstated.

Nicholson Honored by Association

Editor Returns to Job

What was intended to be a farewell party for Ben H. Nicholson, M.D., who resigned as Editor of the *Journal* last spring, turned out to be a welcome-back celebration when a group of well-wishers honored the physician at a dinner on June 30. Just a few days before the dinner, Doctor Nicholson informed the O.S.M.A. office that circumstances which prompted him to resign the editorial post had now changed to the extent that he would take his old job back.

When association president Doctor Walter E. Brown learned the news, he not only personally welcomed Doctor Nicholson's return to the position, but also continued with the dinner plans, re-designating the event as an appreciation dinner. During the dinner, Doctor Brown and past-president Doctor A. T. Baker paid tribute to Doctor Nicholson's dedication to the *Journal*.

Doctor Baker presented Doctor Nicholson with a plaque from the Association, inscribed with a message of appreciation for his six years' service to the physicians of Oklahoma.

In response, Doctor Nicholson explained his return to the job and pledged his continued interest in producing a magazine befitting the needs of the profession.

Present for the event were six O.S.M.A. past presidents, members of the Editorial Boards, members of the Executive Committee and representatives from the printing company and the headquarters staff.

'61 Annual Meeting Officials Named

OSMA President Walter E. Brown, M.D., has named two Tulsa physicians to key positions for the planning and conduct of the 55th Annual Meeting of the Oklahoma State Medical Association.

Ceylon S. Lewis, Jr., M.D., Tulsa internist, will serve as General Chairman, and Donald L. Brawner, M.D., Tulsa surgeon, has accepted the position of Program Chairman.

The meeting will be held at Tulsa's Mayo Hotel, May 7, 8, 9, 1961.

AMA Asks Republicans For Conservative 'Aged' Program

The American Medical Association has urged the Republican Committee on Resolutions to adopt, as Party policy, a plan for helping "those of the aged who need help in the financing of their health care."

Doctor Leonard W. Larson, Bismarck, N.D., president-elect of the A.M.A., appeared before the committee that will draft the Republican Party's 1960 platform. He said that "the A.M.A. is entirely in favor of helping those who need help.

"But the association does not believe this necessitates the creation of massive federal machinery to help those who neither need nor want help, and who are capably handling their own problems at the present time."

Doctor Larson pointed out that the majority of the aged are in good health, and that "relatively few of them are hardship cases."

Further, he said, "the effort of private citizens working together at the community level is getting much of the job done already. And private health insurance and prepayment plans now enable most of the aged to finance their own health care under a wide diversity of plans.

"This is as it should be.

"The majority must be allowed to continue its use of the voluntary method without Federal interference. To compel that majority to accept Federal medicine rather than allow it to buy its own medical care voluntarily, through its own resources, subverts the very principles upon which a free, democratic government must be based.

"Those who propose massive Federal intervention in this field are, in effect, denying the right of individuals to pay voluntarily for their own health care and insisting that this right belongs to the Federal Government."

Doctor Larson said that the nation's physicians are "convinced that the health costs of the needy and near needy can best be determined locally, can best be administered locally, and can neither be determined nor administered adequately through mechanisms operating by remote control from Washington, D.C."

He added, "The A.M.A. believes that the Republican Party should base this portion of its health plank on the principle that the Federal Government should help only those who need help, as determined locally; that action should be responsive to the needs of the individual and the community through local administration, and that such action should supplement, rather than supplant, state, local and private action."

The A.M.A. admonition to the Republicans implied an indirect criticism of the action of the Democratic Platform Committee which endorsed the use of the Social Security mechanism to finance health care for the aged.

Doctor McCarley Retires

T. H. McCarley, M.D., has ended forty-six years of practice as a McAlester physician and fifty-three years in the medical profession.

A graduate of the University of Louisville School of Medicine in 1907, Doctor McCarley began his practice in Simmons, Kentucky, moving to Atoka, Oklahoma in 1910 and to McAlester in 1914.

Long active in all phases of the medical profession, Doctor McCarley served as president of the Oklahoma State Medical Association in 1932-33, was a member of the State Board of Health for twelve years and a charter member of the organizing group of Blue Cross.

In addition, he has been active in civic and church affairs in his community. For five years he acted as President of the McAlester School Board and has been a member of the Board of Directors of the Grand Avenue Methodist Church for thirty-five years.

Recognizing his devotion to the medical profession, the Oklahoma State Medical Association has twice-honored Doctor McCarley when they presented him with a Fifty-Year Pin and an Honorary-Life Membership.

Although Doctor McCarley plans to spend more time on his ranch near Cabiness and enjoy much more fishing than usual, he will remain as President of the Medical Arts Corporation in McAlester.

Oklahoma City Clinical Society to Meet in October

Oklahoma City's Biltmore Hotel will once again be the site of the Oklahoma City Clinical Society's Fall Conference. An outstanding program of postgraduate teaching has been arranged for the meeting to be held October 24, 25 and 26.

Fifteen guest speakers who have been secured from various medical and teaching centers throughout the nation are: Robert P. Allen, M.D. (Radiology) Associate Clinical Professor of Radiology, University of Colorado School of Medicine, Denver, Colorado; Stuart W. Arhelger, M.D. (Surgery) Assistant Professor of Surgery, University of Minnesota Medical School, Minneapolis, Minnesota; Don W. Chapman, M.D. (Medicine) Clinical Professor of Medicine, Baylor University College of Medicine, Houston, Texas; Wesley E. Compere, Jr., M.D. (Otolaryngology) Associate Professor of Surgery, (Otorhinolaryngology), University of Southern California School of Medicine, Los Angeles, California; Clifford F. Gastineau, M.D. (Medicine) Associate Professor of Medicine, University of Minnesota Graduate School, Rochester, Minnesota; Louis J. Girard, M.D. (Ophthalmology) Professor and Head, Division of Ophthalmology, Baylor University College of Medicine, Houston, Texas; Charles F. Gregory, M.D. (Orthopedic) Associate Professor of Surgery, Chairman Division of Orthopedic Surgery, University of Texas Southwestern Medical School, Dallas, Texas; Stanley F. Hampton, M.D. (Allergy) Assistant Professor of Clinical Medicine and Director of Allergy Clinic, Washington University School of Medicine, St. Louis, Missouri; Howard C. Hopps, M.D. (Pathology) Professor and Chairman, Department of Pathology, University of Texas-Medical Branch, Galveston, Texas; Howard W. Jones, Jr., M.D. (Gynecology) Associate Professor Gynecology, Johns Hopkins University School of Medicine, Baltimore, Maryland; Edward T. Krementz, M.D. (Surgery) Associate Professor of Surgery, Cancer Teaching Coordinator, Tulane University School of Medicine, New Orleans, Louisiana; Walter C. Lobitz, Jr., M.D. (Dermatology) Professor and Head, Division of Dermatology, University of Oregon Medical School, Portland, Oregon; Theo. C. Panos, M.D. (Pediatrics) Professor and Chairman, Department of Pediatrics, University of Arkansas Medical Center, Little Rock, Arkansas; E. H. Parsons, M.D. (Psychiatry) Assistant Clinical Professor of Neuropsychiatry, Washington University School of Medicine, St. Louis, Missouri; Robert A. Ross, M.D. (Obstetrics) Professor and Chairman, Department of Obstetrics and Gynecology, University of North Carolina School of Medicine, Chapel Hill, North Carolina; and Doctor John H. Furbay, Internationally Known Lecturer and Director of Global Education Program of T.W.A., New York City, New York.

In addition to the general assemblies, there will be specialty lectures, a clinical pathologic conference, and daily roundtable luncheons with question and answer sessions.

Entertainment will include a banquet on Monday evening at which time the Oklahoma County Medical Society will be host to the guest lecturers and out-of-town doctors. Doctor John H. Furbay, lecturer and director of global education program of Trans World Airlines, will be principal speaker of the evening. On Tuesday evening, there will be a social hour followed by eight specialty group dinners. Climaxing the three-day conference, the annual dinner-dance sponsored by the Oklahoma City Chamber of Commerce and the Oklahoma City Clinical Society will be held.

The Clinical Conference is acceptable for twelve hours of Category I Credit by the American Academy of General Practice. Registration fee of $20.00 includes all features.

After June 15, 1960, physical examinations for FAA Class I, II, and III medical certificates must be conducted by a physician designated as an FAA medical examiner by the Federal Aviation Agency.

Doctor Mosley Appointed Commissioner of Health

"A public health worker has to be something of a missionary," employees of the State Health Department mused, and Doctor Kirk T. Mosley, newly appointed State Commissioner of Health is just that. While serving as a medical missionary in China, Doctor Mosley practiced at Tsing-Kiang-pu General Hospital, a mission hospital with an average of 5,000 in-patients and 70,000 out-patients per year. Two years were also spent as Superintendent of the Yencheng Christian Hospital. During this time Doctor Mosley become more and more interested in public health. "I saw people dying in the streets from cholera while the vaccine was available to prevent it, but superstition kept them away," the doctor recalled thoughtfully. "It was then I recognized the importance of prevention, and the need for individuals to be informed about what services exist and how to go about taking advantage of these benefits."

Arkansas is Doctor Mosley's home state, and he graduated from Hendrix College at Conway, Arkansas before entering Tulane University for his medical degree. After his return from China, the young doctor took a position as interne and later resident of City Hospital, Little Rock to become familiar with the medical advances made during his absence from the United States.

Once again Doctor Mosley returned to school—this time to Harvard where he received his M.P.H. and his Dr.P.H. degrees.

His early experience in public health was with the Arkansas State Health Department where he was medical director of two county health units. Later as medical officer in the U.S. Army, Doctor Mosley was assigned to the Preventive Medicine Section of the Surgeon General's Office and then to the Office of the Surgeon of the China-Burma-India Theater as Theater Epidemiologist.

In addition to his career as a physician and public health administrator, Doctor Mosley has had much teaching experience. Students at Tulane University, Vanderbilt University, and the University of Oklahoma remember him as a dynamic teacher of epidemiology. At the O.U. Medical School he was professor of Preventive Medicine and Public Health and chairman of that department.

At the time of his appointment as commissioner, Doctor Mosley was an associate dean of the University of Oklahoma School of Medicine.

Early each morning Doctor Mosley is vigorously at work in his large corner office located in "the big white building" at 3400 North Eastern in Oklahoma City. One coworker commented, "Doctor Mosley's enthusiasm for his work and his belief in publice health will spur us all to greater efforts in our chosen profession." His interest in public health can be observed beyond office hours in his work with the Oklahoma Health and Welfare Association, the Oklahoma State Heart Association, and the Conference of State Directors of Public Health Training.

Two M.D.'s Added To Committees

OSMA President Walter E. Brown, M.D., has announced the appointments of Homer A. Ruprecht, M.D., Tulsa, and B. C. Chatham, M.D., Chickasha, to positions on the Professional Liability Committee and the Prepaid Medical Care Committee, respectively.

It's in the Bag!

Watch your bag! Safeguard it at all times! Of late there has been an alarming increase in the number of thefts of doctors' bags and drug store burglaries. More effective enforcement of the narcotic laws has resulted in removal from the streets of the pushers and peddlers, and addicts are being forced to drug store burglaries and theft of doctors' bags to obtain a supply of narcotics. Don't leave your bag in your car unless absolutely unavoidable. Leave it protected in your office or home. Should you have to leave it in your car, be sure your car is securely locked and the bag out of sight. Carry in your bag only those narcotic drugs that are absolutely essential. If thieves obtain little or no narcotic drugs from the theft of these bags, it will soon discourage them.

American Heart Association to Hold Scientific Sessions

The American Heart Association's 33rd annual Scientific Sessions, to be held at Kiel Auditorium, St. Louis, from Friday, October 21 through Sunday, October 23, will present six sessions of broad clinical interest to run concurrently with the investigative scientific programs. Also included are programs of particular interest to dentists and nurses.

The six clinical programs, stressing the application of findings in cardiovascular research, will be proportioned among symposia, panels, lectures of general interest and submitted papers on recent results of research. As in the past, these sessions have been classified by the American Academy of General Practice as acceptable for Category II credit for Academy members.

The opening scientific session on Friday, October 21, will include introductory remarks by A. Carlton Ernstent, M.D., President of the American Heart Association; the Lewis A. Conner Memorial Lecture on Physiology of the Circulation as Viewed by the Internist," by Eugene A. Stead, Jr., M.D., Professor and Chairman of Medicine, Duke University School of Medicine. The remainder of the session will be conducted jointly by the AHA Council on Clinical Cardiology and the American College of Cardiology.

"Fireside Conferences" sponsored jointly with the American College of Cardiology are scheduled for Friday evening.

Saturday's program includes presentation of the Association's Albert Lasker Award and the George E. Brown Memorial Lecture on "Clinical Physiology of the Splanchnic Circulation," by Stanley E. Bradley, M.D., Professor of Medicine, and Chairman of the Department, Columbia University College of Physicians and Surgeons.

Included in Sunday's sessions are three symposia on the subjects of "Complete Heart Block," "Nondietary Factors in Coronary Artery Disease," and "Lipids and Arteriosclerosis." Following a similar program presented successfully last year, Sunday's sessions will also include morning and afternoon showings of cardiovascular films, each of which will be introduced and discussed by the author or other authority on the subject.

This year for the first time a session for dentists has been scheduled to be held on Friday afternoon. Also, following its enthusiastic acceptance in 1959, a program for nurses has been scheduled for Saturday morning and afternoon.

As in previous years, scientific and industrial exhibits will be on display in the Auditorium.

Forms for registering and for reserving accommodations may now be obtained from the American Heart Association, 44 East 23rd Street, New York 10, N.Y.

State Heart Association Names New Officers

E. C. Mohler, M.D., Ponca City became a Vice-President of the Oklahoma State Heart Association at the organization's recent Annual Meeting. He will serve with Joseph G. Rucks of Oklahoma City, newly elected president and C. S. Lews, Jr., M.D., Tulsa, immediate past president and now Chairman of the Association's State Executive Committee.

Four Oklahoma physicians were elected to the Association's Board of Directors for three year terms. They are: LeRoy Engles, M.D., Durant; Leon C. Freed, M.D., Stillwater; Harold H. Jones, Jr., M.D., Ponca City; and Stewart G. Wolf, M.D., Oklahoma City.

Other new board members include: Ted L. Kimbro, Idabel; Miss Julia Marlow, Pawnee; John Morgan, Oklahoma City; Miss Grace L. Spivey, Stillwater; Mrs. J. Dudley Wilkinson, Shawnee; and Mr. Leo Hicks, Duncan.

Both Doctor Mohler and Doctor Lewis were re-elected for three-year terms of office on the Board of Directors.

Other re-elected board members were: Robert H. Bayley, M.D., and Wm. Best Thompson, M.D., both of Oklahoma City; Hugh O. Davis, Shawnee; and L. D. Lacy, Oklahoma City.



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OU Alumni Launches Ten Year Improvement Program For Medical Center

Executive Secretary Employed

Projected goals and activities of the Alumni Association of the University of Oklahoma School of Medicine for aiding in the development of a Medical Center for Oklahoma that will meet the state's present and long-range needs have so progressed that an executive secretary has been employed, it was announced recently by Alumni President John R. Taylor, M.D., Kingfisher, Okla.

The Alumni Association has employed Lawrence W. Rember, 425 N.W. 44th Street, Oklahoma City, for the newly-created position.

For the past 12 years, Hugh Payne, Executive Vice President of the Oklahoma Medical Research Foundation, Oklahoma City, has served as volunteer executive secretary. He will continue as volunteer consultant.

Progressive forward steps outlined for the Medical Center and School of Medicine, located at 800-815 N.E. 13th Street in Oklahoma City, call for enlistment of lay leaders and organizations, the general public, the legislature, university and higher education regents, government officials, and the medical profession in achieving first-class medical health facilities for Oklahoma. A 10-year projected program is being designed to meet the medical center needs of all ages, the aged, those in middle life, the young, children, and infants.

Initially a thorough study will be made of the various units comprising the present Medical Center, School of Medicine, and teaching hospitals to secure firsthand facts and figures as a prelude to preparing a plan of action for building, equipping, staffing, financing, and maintaining a front rank medical health center in serving the people of Oklahoma.

Mr. Rember brings considerable medical and health experience to his new position. He served as nationwide Field Secretary of the American Medical Association for three years and as Director of Public relations and Executive Assistant to the General Manager for four years. He was Director of Public Relations for the American Hospital Association's Blue Cross Plans Commission for the United States and Canada for two years. He directed public information for the American Red Cross for the 17-state Midwestern Area, including Oklahoma, for two years.

He has held executive director, public relations director, and editorial positions with other national professional and trade associations.

Mr. Rember was graduated this May at the age of 52 with the degree of Bachelor of Laws obtained by four years of nighttime study at Oklahoma City University. During the past three years by daytime study at the College of Law at the University of Oklahoma, he has taken 25 semester hours in law beyond LL.B. degree requirements. He holds also an M.S. degree from Northwestern University and an A.B. degree from the University of Wisconsin in Journalism-Commerce. He taught journalism and advertising for one school year at the University of Georgia.

He is a member of Sigma Delta Chi honorary journalism fraternity, a charter member of the National Association Executives Club of Washington, D.C., the Public Relations Society of America, and Delta Phi, honorary legal fraternity. He is a Sigma Chi, and attends the Methodist Church. Mr. Rember's wife Muriel served formerly as executive secretary of the Oklahoma County Medical Society for eleven years.

Members of the Executive Committee of the Alumni Association with whom Mr. Rember will work most closely are: President John R. Taylor, M.D., President-Elect Wilbur Lewis, M.D., Lawton, Past-President Wendell Smith, M.D., Tulsa, Secretary Samuel T. Moore, M.D., Oklahoma City, and Treasurer Wayne A. Starkey, M.D., Altus. Dean Mark Everett, Director of the Medical Center and Dean of the School of Medicine, is an ex-officio member.

In the near future, the 37 trustees of the Alumni Association, located throughout Oklahoma, will be visited by Mr. Rember for the purpose of obtaining their help and counsel to assist in developing a most modern and complete Medical Center for Oklahoma. Regular members of the Alumni Association include O. U. medical school grad-

uates practicing in Oklahoma and elsewhere in the United States. Life members and associate members include both O. U. and non-O. U. medical school graduates. Of the 2,200 O. U. medical school alumni, about 1,800 are presently in active medical practice.

Other main goals of the Alumni Association besides: 1) fostering the growth of the Medical Center by developing and following a 10-year plan, are 2) encourage adequate medical postgraduate studies, 3) develop the Alumni Association into a more closely knit medical health functioning unit, 4) establish beneficial liaison with students in the School of Medicine, and 5) the Alumni Association, having initiated and provided continuing influence in the development of the Oklahoma Medical Research Foundation, intends to continue such support in any further advances.

Attorney General Rules Against Incorporation

Physicians may not practice medicine and surgery as a corporation, according to a July 6 opinion of the Attorney General of Oklahoma.

Prior to this development, it was believed to be authorized by many Oklahoma lawyers, under 59 O.S. 1951, paragraph 510. Ethical barriers against practice as a corporation were removed by the AMA in 1957 when the House of Delegates approved a resolution which permitted such organization (if legal under state laws) provided the physicians own and manage the corporation and continue to be individually responsible for their ethical conduct.

The provision of paragraph 510, the opinion stated, specified what to do after incorporation was affected, but did not, in fact, establish general law authorizing such incorporation. The opinion further reasoned that the 1923 Legislature approved the Medical Practice Act (par. 510 was a provision therein) without realizing that such corporations were not provided for under existing corporate laws. It was therefore ruled that the reference to the creation of a corporation in the Medical Practice Act was voided because it was beyond the scope of the title of the act.

Have You Heard?

ROBERT LEMBKE, M.D., formerly of Pryor, has accepted the position of chief of the occupational medical department, of the Ponca City division, Continental Oil Company.

Taking Doctor Lembke's place in Pryor will be Sherman A. Hope, M.D., a 1957 graduate of the University of Oklahoma School of Medicine.

W. PAUL DICKINSON, M.D., former Tecumseh physician, has joined the staff of the Broadway Clinic in Shawnee. Doctor Dickinson graduated from the University of Oklahoma School of Medicine and completed his residency in obstetrics and gynecology at Vanderbilt University Hospital in Nashville.

WILLIAM O. ELLIFRIT, M.D., a 1959 graduate of the University of Oklahoma School of Medicine, recently moved to Seminole where he will be a staff member of the Harrison-Parrish Clinic in general practice.

PHILLIP H. MCCLURE, a '60 graduate of Amherst College and son of H. M. McClure, M.D., past president of the Oklahoma State Medical Association, was recipient of the Woods-Travis Prize, an award for outstanding improvement in his class "as a man and a scholar."

After seven years of general practice in Nowata, JAMES H. ELLIOTT, M.D., a 1952 graduate of the University of Oklahoma School of Medicine, has begun a two-year residency in ophthalmology at the University of Oklahoma Medical Center.

SAMUEL E. DAKIL, M.D., a graduate of the University of Oklahoma School of Medicine, has joined the staff of the McAlester Clinic. Doctor Dakil's specialty is E.N.T.

ROBERT G. BISSELL, M.D., formerly of Sioux Falls, South Dakota, is now associated with George R. Booth, M.D., in the Booth Clinic in Wilburton. Doctor Bissell is a graduate of the University of Oklahoma School of Medicine.

Coming Meetings

CORONARY ARTERY DISEASE

Nov. 28-Dec. 2, 1960 — **Texas Medical Center, Houston, Texas**

The University of Texas Postgraduate School of Medicine will present a symposium on Coronary Artery Disease, November 28 through December 2, 1960 at the Texas Medical Center, Houston, Texas. Six guest lecturers, augmented by a local faculty, will present the program.

This five-day program has been approved by the Academy of General Practice for Category I Credit. No tuition will be charged unless physicians attending desire AAGP credit in which case a $5.00 registration fee will be required.

For further information write: Office of the Dean, University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25, Texas.

9th WESTERN CARDIAC CONFERENCE

August 15-20, 1960 — **Denver, Colorado**

The 9th Western Cardiac Conference will be held in Denver, Colorado, August 15-20, 1960. Ten out-of-state speakers have accepted invitations to speak for the three-day session. Meetings will be held in Phipps Auditorium. Further information may be obtained from Colorado Heart Association, 1636 Logan Street, Denver 3, Colorado.

POSTGRADUATE COURSE IN PEDIATRICS

The University of Colorado School of Medicine

September 1-6, 1960 — **The Stanley Hotel, Estes Park, Colorado**

The Department of Pediatrics and the Office of Postgraduate Medical Education, University of Colorado School of Medicine will present a Course in Pediatrics at the Stanley Hotel, Estes Park, Colorado, September 1-6, 1960.

Sixth Annual Meeting
AMERICAN RHINOLOGIC SOCIETY

October 8, 1960 — **Chicago, Illinois, Belmont Hotel**

The American Rhinologic Society will hold its sixth annual meeting at the Belmont Hotel, Chicago, October 8, 1960.

No registration fee will be required and further information may be obtained by writing Robert M. Hansen, M.D., secretary, American Rhinologic Society, 1735 North Wheeler Avenue, Portland 17, Oregon.

COURSE IN LARYNGOLOGY AND BRONCHOESOPHAGOLOGY

October 17-20, 1960 — **University of Illinois College of Medicine, Chicago, Illinois**

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in Laryngology and Broncheosophagology from October 17 through October 29, 1960, under the direction of Paul H. Holinger, M.D.

Registration will be limited to fifteen physicians who will receive instruction by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants may write to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

FOURTH NATIONAL CANCER CONFERENCE

September 13-15, 1960 — **Minneapolis, Minnesota**

The Fourth National Cancer Conference will be held September 13-15, 1960 in Minneapolis, Minnesota. Further information may be obtained by writing to Roald N. Grant, M.D., Coordinator, American Cancer Society, Inc., Medical Affairs Department, 521 West 57th Street, New York 19, New York.

SOUTHERN TRUDEAU SOCIETY
and
SOUTHERN TUBERCULOSIS CONFERENCE

September 14, 15, 16, 1960 — **Hotel Francis Marion, Charleston, South Carolina**

The 1960 Annual Meeting of the Southern Trudeau Society and the Southern Tuberculosis Conference will be held on September 14, 15, and 16, 1960 at the Hotel Francis Marion, in Charleston, South Carolina. Information may be obtained from Judson M. Allred, Jr., Secretary-Treasurer, Southern Tuberculosis Conference, P.O. Box 9865, Northside Station, Jackson, Mississippi.

6th INTERNATIONAL CONGRESS OF INTERNAL MEDICINE

August 24-27, 1960 — **Basle, Switzerland**

The 6th International Congress of Internal Medicine will convene in Basle, Switzerland, August 24-27, 1960. Simultaneous translation for the principal speakers will be given in German, French and English. Programs and registration forms are available from the 6th International Congress of Internal Medicine, Steinentorstrasse 13, Basle 10, Switzerland.

Auxiliary News

Mid-Summer Slump

By the middle of August most Auxiliary members are adjusted to the hard fact of living: tranquility is somewhat illusory, a summer idyll concocted during busier winter months. Our own organizational activities seem dormant—but only on the surface.

Legislation + Public Relations

Legislation and Public Relations are two year-around fields, and are infinitely interrelated. Granted, there have been no emergency contacts recently; but as both political parties swing into high gear before the November election, our awareness of platforms and issues should become intensified. Often, too often, we are accused of being politically-minded as a group only when medical issues are pending.

Do you feel this accusation is a just and fair one for you and for your Auxiliary? If you do, then what better time is there to start reading, studying and discussing broader political issues? Your "educated" outlook can improve your Public Relations at the same time. Much depends upon the manner in which it is done. (Those people who blandly lock the door with the statement: "I never discuss politics with my friends," have no idea of what they are missing with their friends in the realm of understanding.)

Points From National

During the convention in June, printed suggestions on legislation were presented to the convention in a booklet: *The Road to Effective Citizenship*. After summarizing the meaning of good government, a citizen's responsibilities, and "some political facts of life," our National Committee on Legislation submitted the following steps necessary toward securing the best government possible:

1. Take an active, willing, and interested part in the affairs of the community. This means real participation in PTA groups, young people's activities, fund drives, church work, and so on.

2. Plan your contributions of time in such community activities in the same manner that you plan your budget or your tithe. Concentrate on making *real* contributions, but don't scatter your shots.

3. Participate actively in the local political party of your choice. Let the party organization know you are willing to work. Help with political rallies, dinners and meetings; all are affairs essential to party morale. Help with fund-raising is obviously important. "If you are active and hard-working, you will have a say in the end result. If you are not and do not like the results, *not a soul will note your tears!*"

4. Take a stand if you believe in a cause or a candidate. Many of the friends you make in your community will be grateful for guidance. (As noted before, your convictions must be based on your own knowledge and insight, based on thorough study.)

5. Write to your congressmen and urge your friends to do the same. When your congressman takes a position you have recommended, write and thank him.

6. Remind your doctor husband that his most devoted and grateful friends are his satisfied patients. Urge them to help out in political issues of the day. They will welcome a chance to do something. (Our Legislative Committee mentions that the doctors of America see two million patients a day.)

7. Get into politics and have some fun. You will find nothing else quite so exhilarating.

8. Be proud of your part in politics as perhaps your highest form of social endeavor.

With all of these suggestions certainly no County Legislation Chairman can feel that mid-summer slump can in any way effect her particular field. Convinced?—then study and start convincing others right away. Our State Legislation and Key Woman is Mrs. Joseph W. Kelso, 319 N.W. 18th, Oklahoma City.



The basic question is whether we are to discard the system that has brought us to our present level of health care, and promises much higher levels for the future, in favor of a regulatory strait jacket that stifles initiative, bureaucratizes research, and promises nothing for the future.

You can't go places in a strait jacket...!

An editorial writer recently made the interesting suggestion that the pharmaceutical industry might have avoided much of the current public interest in its affairs if they had simply restricted themselves to making aspirin tablets and rubbing alcohol, competing only by debating which aspirin dissolves faster. • No one has seriously suggested a return to the "good old days" in therapeutics, but there are apparently some who would like to destroy the system that has produced for us the finest medical care in the history of the world. Whether they attack the freedom of the patient to choose his physician, the freedom of the physician in the practice of his profession, or the freedom of the pharmaceutical industry is immaterial. • If the desideratum is simply maintenance of the status quo in health care, medicine might well have rested on its 19th century laurels and the pharmaceutical industry on aspirin tablets and rubbing alcohol.

This message is brought to you on behalf of the producers of prescription drugs as a service to the medical profession. For additional information, please write Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D. C.

Deaths

Charles Ed White, M.D.
1893-1960

Charles Ed White, M.D., died July 7, 1960 in Muskogee.

Born in 1893, Doctor White graduated from the University of Tennessee Medical School in 1923, later specializing in obstetrics and gynecology. Following many years of private practice in Muskogee, he assumed duties as staff physician at the State War Veterans Home in Sulphur, Oklahoma in 1957.

Doctor White was a member of the Oklahoma State Board of Health.

In 1957, he was honored for his years of service to the medical profession when the Oklahoma State Medical Association presented him with a Life Membership.

John Fish Park, M.D.
1887-1960

John Fish Park, M.D., 73-year-old McAlester physician, died July 6, 1960.

Born in New Brighton, Pennsylvania in 1887, Doctor Park graduated from Jefferson Medical College, Philadelphia in 1914. He was a member of the American College of Surgeons, the American Board of Surgery and a Fellow of the Academy of International Medicine.

Doctor Park served for four years on the State Board for Crippled Children's Society.

In 1958, Doctor Park was made an Honorary-Life Member of the Oklahoma State Medical Association in recognition of his years of service to the medical profession.

John Stanley Callahan, M.D.
1897-1960

John Stanley Callahan, M.D., long-time Wilburton physician, died at his home July 9, 1960.

Born in Salem, Missouri, in 1897, Doctor Callahan graduated from the University of Oklahoma School of Medicine in 1924.

Doctor Callahan practiced medicine in Heavener, Oklahoma from 1926 to 1933 before moving to Wilburton.

Albert C. Bailey, M.D.
1870-1960

Albert C. Bailey, M.D., 89-year-old, retired Holdenville physician, died June 27, 1960 in Holdenville.

Born in Malvern, Arkansas in 1870, Doctor Bailey attended Arkansas University Medical School. He practiced medicine in the Indian Territory and later in Lone Oak, Arkansas before coming to Holdenville.

Doctor Bailey served as deputy county clerk for Hughes County for thirteen years and as county clerk for four years. He retired from active practice in 1940.

PHYSICIAN PLACEMENT

General Practice

Johnny Bill Delashaw, U.S.P.H.S. Hospital, Wyman Park Drive and 31st Street, Baltimore 11, Maryland, age 27, married, University of Texas Medical Branch, 1959, available July 1960.

John William Kennard, M.D., Blowing Rock Hospital. Blowing Rock, North Carolina; married; age 29; Bowman Gray School of Medicine, 1956: veteran; available August 29, 1960.

Carle H. Schroff, M.D., 3811 State Line, Kansas City 11, Missouri: Age 31; married; University of Kansas. 1959: veteran; available August, 1960.

Internal Medicine

Thomas Turner Walton, Jr., M.D., 7375 Churchill, Detroit, Michigan: Age 29; married; Baylor College of Medicine, 1955; Board eligible; veteran; specialty, internal medicine; desires group or associate practice; eligible, July 1961.

Locum Tenens

Harold W. Calhoon, M.D., Wesley Hospital. Oklahoma City. One year residency in Internal Medicine. Available July 1 to September 15th, 1960.

Arnold Giesbrecht, M.D., Hallock, Minnesota, age 34, married, graduate Winnipeg, Manitoba, 1957, prefers suburban or locality close to cities.

Russell M. Preston, M.D., 476 San Juan, Oak Harbor, Washington, desires six month's work in General Practice between time of separation from military service to beginning of residency training, January-July, 1960.

Obstetrics and Gynecology

Gerald R. Keilson, M.D., Medical Arts Building, Dallas, Texas, age 31, married, University of Texas, 1953, board qualified, veteran, available in July 1960.

Juan C. Ruiz, M.D., 350 Park Ave., Lexington, Kentucky; age 36; married; University of San Marcos Medical School 1952; no military obligations; available July 1, 1960.

Robert B. Williams, M.D., 27 Normandy Road, Auburndale 66, Massachusetts; married; age 30; Tulane University, 1955; board certified; available July 1, 1961.

Orthopedics

Newsom Stool, M.D., c/o Mayo Clinic, Rochester, Minnesota; age 30; married; Baylor University 1953; Board eligible; available July 1960.

Urology

Alex Grossman, M.D., V.A. Center, Temple, Texas, 42, married, University of Texas, 1951, board certified, veteran, available now.

Surgery

Clarence I. Britt, M.D., 1650 Neil Avenue, Apt 15, Columbus, Ohio; age 32: married; Ohio University College of Medicine, 1951; American Board of Surgery 1959; eligible American Board of Thoracic Surgery, 1960; inactive reserve; available July 1960.

Attend The

Oklahoma City
Clinical Society
FALL CONFERENCE

Biltmore Hotel • Oklahoma City • October 24, 25, 26

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association, August, 1935.

THE PRESENT STATUS OF RADIATION THERAPY

EVERETT S. LAIN, M.D.
MARION M. ROLAND, M.D.
Oklahoma City

Since the discovery of x-ray by Roentgen in 1895 and radium in 1898 by Madame Curie, one or both of these agents has become an almost indispensible therapeutic, as well as diagnostic aid to every department of medicine. Let us take a brief retrospective view of the slow but certain progress of radiology during the past forty years.

Soon after the discovery of this electro-potentiality, accidental skin reactions of varying degrees began to occur upon the hands and faces of the frequently exposed operators in various laboratories throughout the world. These radiation accidents were unfortunate though served to stimulate experimental treatment of many hitherto intractable diseases such as chronic eczema, psoriasis, ringworm, birthmarks and cancer. In the meantime many individual laboratories had begun to study in a limited way the histological effects of radiation upon both normal and pathologic structures, though not until ten or twelve years later were the real fundamental laws of radiation therapy announced by Bergonie and Triboudeau. They alleged, after a careful study, that each variety of cells responded differently to the x-ray and radium; that immature cells which were undergoing more rapid growths (mitiosis) were more radiosensitive than adult cells or those which are at mitiotic rest.

The original work of these men foretold a new day for rational radiation therapy and was subsequently verified with additional elaborations by Heineke, Regaud, Warthin, and Schwartz, and soon became universally recognized as the foundation of all x-ray and radium therapy.

Christie has recently tersely expressed this law as follows: "The sensitivity peculiar to each kind of cell appears to be related to its life cycle; that is, the shorter the life cycle the more sensitive to radiation. Bone and nerve cells have the longest life cycle, therefore, are the most resistant."

Regaud after a large experience made a further fundamental observation, viz: that previously radiated tissues or poorly nourished ischemic tissue, and tissue which has been affected by inflammatory or microbic invasion becomes more radio-resistant than in its normal status.

One of us (Lain) recently heard Douglas Quick give public expression to approximately the following words: "With modern x-ray equipment following the improved so-called Coutard technic and improved intestinal radium radiation, it now seems probable that within the next ten years the treatment of cancer of the breast will be entirely delegated to the radiologist."

MISCELLANEOUS ADVERTISEMENTS

WANT TO BUY USED X-RAY machines, components and accessories. Send full description and photo. Reconditioned, guaranteed X-rays and medical equipment for sale or trade. Write or call TeX-Ray Co., 3305 Bryan, Dallas, Texas, TA 4-8565. (Open to the profession Wednesdays and Thursdays, 9-5. Other times by arrangement.)

WANTED: Surgeon to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

FOR SALE: Examining room furniture and equipment. Call WI 6-1883, after 5:00 p.m.

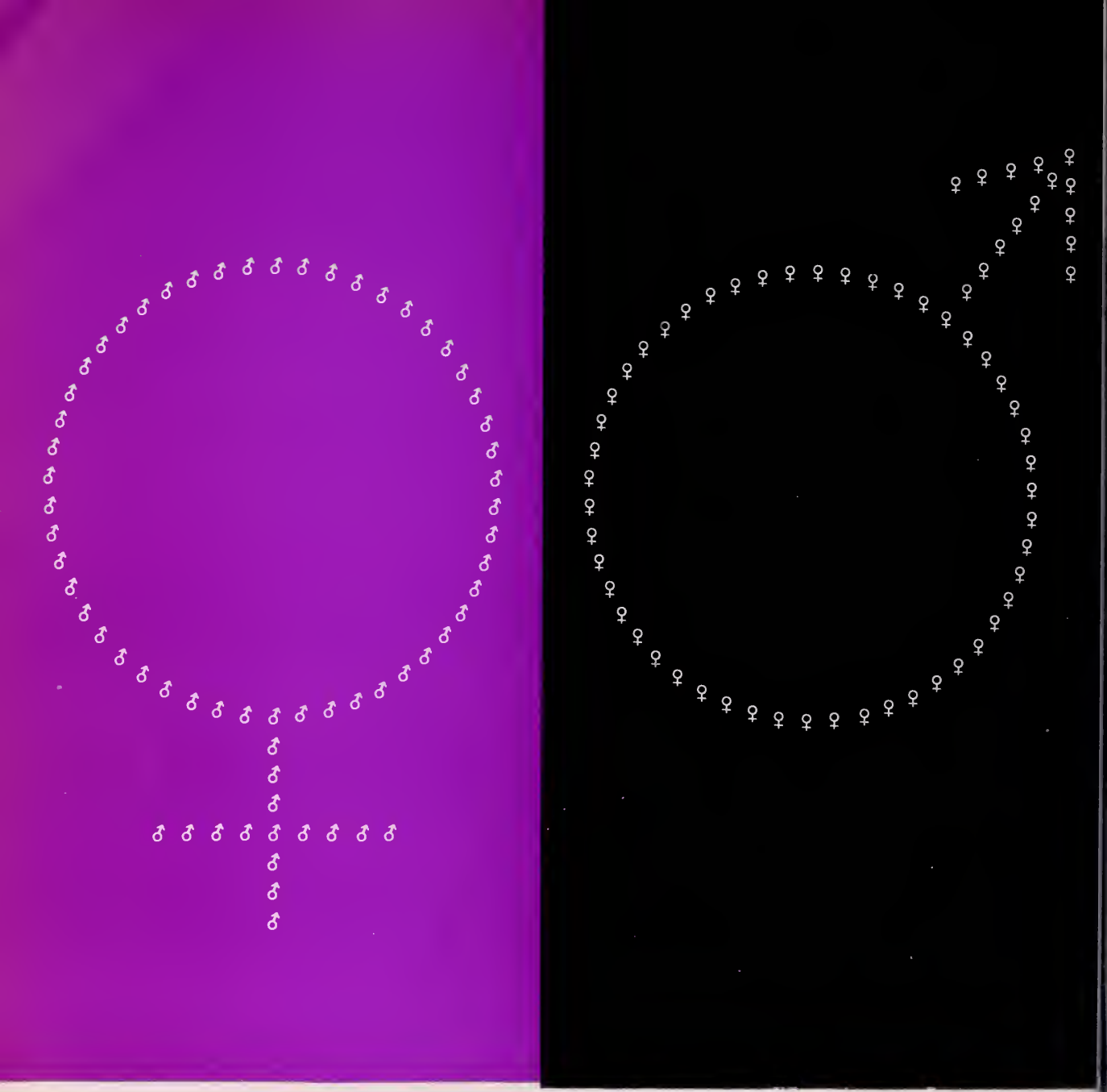
FOR RENT: Office space for two doctors. New air-conditioned clinic building. 1714 S. Midwest Blvd., Midwest City, Okla. Complete maintenance. Plenty of free parking for patients. Other two suites occupied by general practitioners. PE 2-4589.

WANTED: Internist to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

PHYSICIAN for Ramona, Oklahoma, growing ranch-farm community, over 1,000 trade area, 35 miles from Tulsa. Will build. Bring family, visit. Merle Smith, President, Ramona Medical Building.

BOARD CERTIFIED or board eligible internist and pediatrician are needed for the Broadway Clinic, Shawnee, Oklahoma; $12,000 per year to start, with a future partnership available. Shawnee has a population of approximately 30,000, and is located within 40 miles of Oklahoma City, and the University of Oklahoma Medical Center. The Clinic owns a 40-bed, modern, air-conditioned hospital which is located adjacent to the clinic building.

FOR RENT: Available October 1, Clinic Building to accommodate one or two doctors. Excellent facilities. Long-established background. Located 318 West Commerce. Contact Miss Dining, ME 4-0573 or CE 6-5222.



GONORRHEA *IS ON THE MARCH AGAIN...*

a new timetable for recovery:

only six capsules of TETREX can cure a male patient with gonorrhea in *just one day

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THE ORIGINAL TETRACYCLINE PHOSPHATE COMPLEX

TETREX CAPSULES. 250 mg. Each capsule contains: TETREX (tetracycline phosphate complex equivalent to tetracycline HCl activity) — 250 mg.

DOSAGE: Gonorrhea in the male — Six capsules of TETREX in 3 divided doses, in one day.

*Marmell, M., and Prigot, A.: Tetracycline phosphate complex in the treatment of acute gonococcal urethritis in men. Antibiotic Med. & Clin. Ther. 6:108 (Feb.) 1959.

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	Excellent	Good	Fair	Poor	Total
LOW BACK SYNDROMES					
Acute low back strain	25	19	8	6	58
Chronic low back strain	11	5	1	1	18
"Porters' syndrome"*	21	5	1	1	28
Pelvic fractures	2	1	—	—	3
NECK SYNDROMES					
Whiplash injuries	12	6	2	1	21
Torticollis, chronic	6	2	3	2	13
OTHER MUSCLE SPASM					
Spasm related to trauma	15	6	1	—	22
Rheumatoid arthritis	—	18	2	1	21
Bursitis	2	6	1	—	9
TENSION STATES	18	2	4	3	27
TOTALS	112 (51%)	70 (32%)	23 (10%)	15 (7%)	220 (100%)

*Over-reaching in lifting heavy bags resulting in sprain of upper, middle, and lower back muscles.

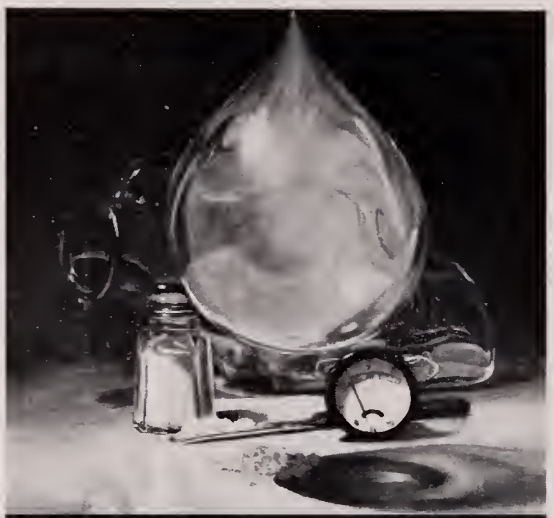
Dosage: **Adults, 200 or 100 mg. orally three or four times daily.**
Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

How Supplied: Trancopal Caplets®
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100 mg. (peach colored, scored), bottles of 100.

1. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960.

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Naturetin c̄ K

Squibb Benzydroflumethiazide with Potassium Chloride

"...a safe and extraordinarily effective diuretic..."[1]

Naturetin — reliable therapy in edema and hypertension — maintains a favorable urinary sodium-potassium excretion ratio . . . retains a balanced electrolytic pattern:

"...the increase in urinary output occurs promptly..."[1]

"...the least likely to invoke a negative potassium balance..."[2]

"...a dose of 5 mg. of Naturetin produces a maximal sodium loss."[2]

"...an effective diuretic agent as manifested by the loss in weight..."[3]

"...no apparent influence of clinical importance on the serum electrolytes or white blood count."[3]

"...no untoward reactions were attributed to the drug."[4]

Although Naturetin causes the least serum potassium depletion as compared with other diuretics, supplementary potassium chloride in Naturetin c̄ K provides added protection when treating hypokalemia-prone patients; in conditions where likelihood of electrolyte imbalance is increased or during extended periods of therapy.

Numerous clinical studies confirm the effectiveness[1-15] of Naturetin as a diuretic and antihypertensive — usually in dosages of 5 mg. per day.

■ the most potent diuretic, mg. for mg.—more than 100 times as potent as chlorothiazide ■ prolonged action — in excess of 18 hours ■ maintains its efficacy as a diuretic and antihypertensive even after prolonged or increased dosage use ■ convenient once-a-day dosage — more economical for patients ■ low toxicity — few side effects—low sodium diets not necessary ■ not contraindicated except in complete renal shutdown ■ *in hypertension*—significant lowering of the blood pressure. Naturetin may be used alone or with other antihypertensive drugs in lowered doses.

Supplied: Naturetin Tablets, 5 mg. (scored) and 2.5 mg. Naturetin c̄ K (5 c̄ 500) Tablets (capsule-shaped) containing 5 mg. benzydroflumethiazide and 500 mg. potassium chloride. Naturetin c̄ K (2.5 c̄ 500) Tablets (capsule-shaped) containing 2.5 mg. benzydroflumethiazide and 500 mg. potassium chloride.

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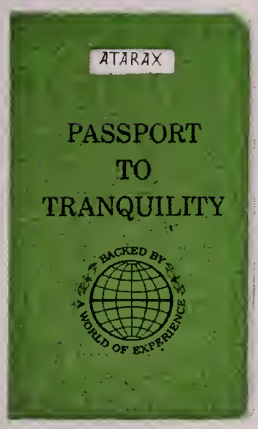
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IN ELDERLY PATIENTS well tolerated by debilitated patients	"... seems to be the agent of choice in patients suffering from removal disorientation, confusion, conversion hysteria and other psychoneurotic conditions occurring in old age." Smigel, J. O., et al.: J. Am. Geriatrics Soc. **7**:61 (Jan.) 1959.	Settel, E.: Am. Pract. & Digest Treat. **8**:1584 (Oct.) 1957. Negri, F.: Minerva med. **48**:607 (Feb. 21) 1957. Shalowitz, M.: Geriatrics **11**:312 (July) 1956.
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Dietary Linoleic Acid and Linoleate—*Effects in Diabetic and Nondiabetic Subjects with and without Vascular Disease*

A paper by Laurance W. Kinsell, M.D., et al., excerpted from Diabetes—The Journal of the American Diabetes Association, May-June 1959

"*Linoleic acid as the major 'hypocholesterolemic agent' in vegetable fats.* The question has been raised as to the mechanism of lowering of the plasma lipids by a variety of vegetable fats. Among the entities present in or absent from vegetable fat which have been considered are: (a) the absence of cholesterol; (b) the presence of certain vegetable sterols; (c) the presence of certain vegetable phospholipids; (d) the nature of one or more of the fatty acids present; (e) the presence of trace materials.

n the diet

The absence of cholesterol has been excluded as a major factor.[5a] Phospholipids, if they contain a sufficient quantity of unsaturated fatty acids may produce a striking reduction. In our experience thus far saturated phospholipids fail to produce such an effect.[7]

Beveridge and his associates believe that vegetable sterols, particularly beta-sitosterol, are responsible to a significant degree for the cholesterol-lowering effect.[8] In our experience the vegetable sterols have a relatively weak and unpredictable effect of this sort.

Since the fatty acids of animal fats are predominantly saturated, and the fatty acids of most vegetable fats are predominantly polyunsaturated, with linoleic acid as the major component of the vegetable fats which lower cholesterol and other lipids, the question arises whether linoleic acid per se is capable of lowering plasma lipids. As reported previously[7] this is indeed the case. In a recent study in a young male with peripheral atherosclerosis in association with elevation of plasma cholesterol and of total lipids, ethyl linoleate produced a greater fall in the plasma lipid levels than had moderate amounts of natural sources of unsaturated fat. Linoleic acid, therefore, appears to be the most important single lipid-lowering component of vegetable fat.

* * *

Significantly higher levels of cholesterol were observed during oleate administration than during administration of equal amounts of linoleate. The relatively low cholesterol values during the second oleate period may have been related to linoleate stored in fat depots. The fatty acid composition of the cholesterol esters reflected the fat which was fed, i.e., the mono-enoic† acid content averaged more than 40 per cent during oleate feeding and less than 20 per cent during linoleate ingestion. Essentially, a mirror image of this resulted during linoleate feeding, at which time di-enoic acid predominated.

* * *

The data presented in this paper appear to establish that linoleic acid administered either as purified ethyl ester or as naturally occurring fat, in sufficient quantity, in properly constructed diets, will reduce plasma lipids to normal levels. The amount of linoleic acid required appears to bear a direct relationship to the amount of saturated fat included in the diet. Linoleic acid requirement may also bear a significant relationship to the amount of atherosclerosis present.

The transition from evaluation of the effect of dietary entities upon plasma lipids, to the evaluation of the effect of such materials upon vascular disease is difficult. However, such evaluation is not impossible. The requisites are adequate measuring sticks and well-controlled studies of sufficient duration. The duration of observation of effects of unsaturated fat in diabetic and nondiabetic patients with vascular disease is in no instance more than five years, and in the majority of instances, less than three. Our present impression is that improvement has occurred in some patients with atherosclerosis and with diabetic retinal and renal disease which was more than we would have anticipated in terms of the natural course of the disease. However, since it is well known that major fluctuations in these diseases can occur in individuals receiving no treatment, we believe it is appropriate at this time to say that no untoward effects appear to result when one prescribes diets containing large amounts of unsaturated fat for patients with such diseases, and it is not impossible that beneficial effects may be associated with such diets."

* * *

5a Kinsell, L.W., Partridge, J. W., Boling, L., Margen, S., and Michaels, G.D.: Dietary modification of serum cholesterol and phospholipid levels. J. Clin. Endocrinol and Met. 12:909, 1952.

7 Kinsell, L. W., Friskey, R., Splitter, S., Michaels, G. D.: Essential fatty acids, lipid metabolism, and atherosclerosis. Lancet 1:334, 1958.

8 Beveridge, J.M., Connell, W.F., Firstbrook, J. B., Mayer, G.A., and Wolfe, M.J.: Effects of certain vegetable and animal fats on plasma lipids of humans. J. Nutrition 56:311, 1955.

† Mono-enoic (mono-unsaturated) acid is presumably synonymous under these conditions with oleic acid and di-enoic (di-unsaturated) acid with linoleic acid

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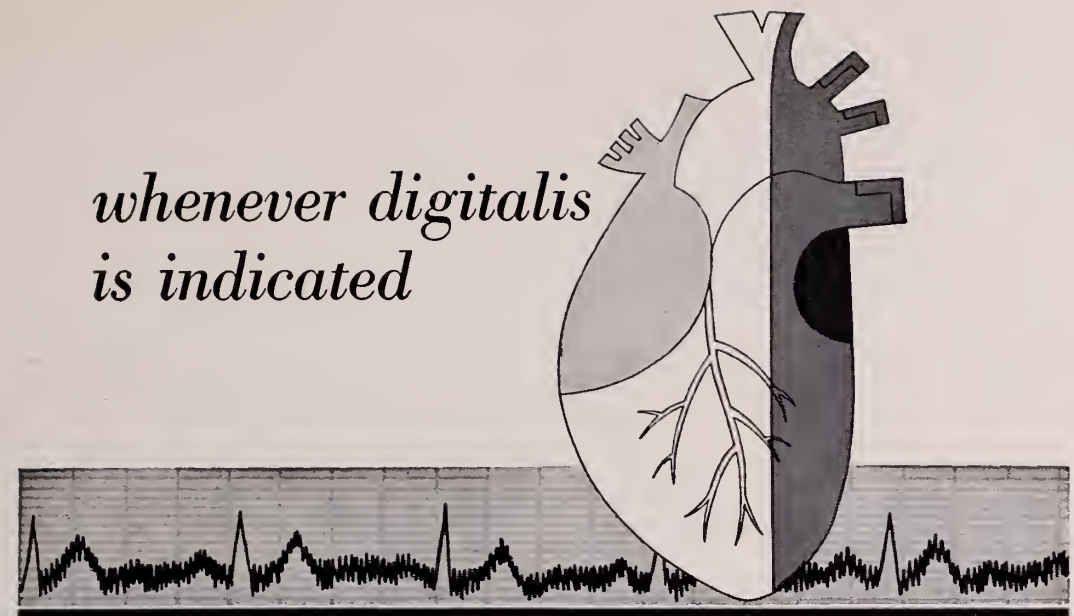
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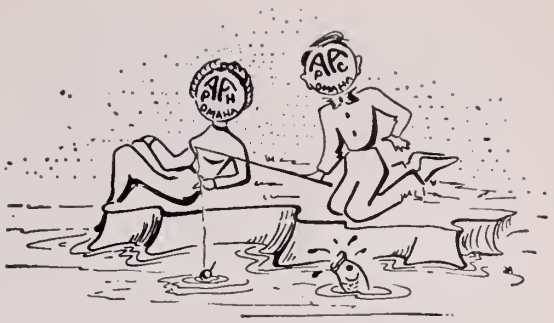
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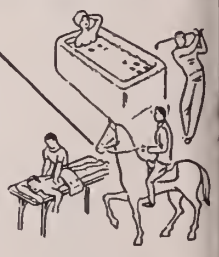
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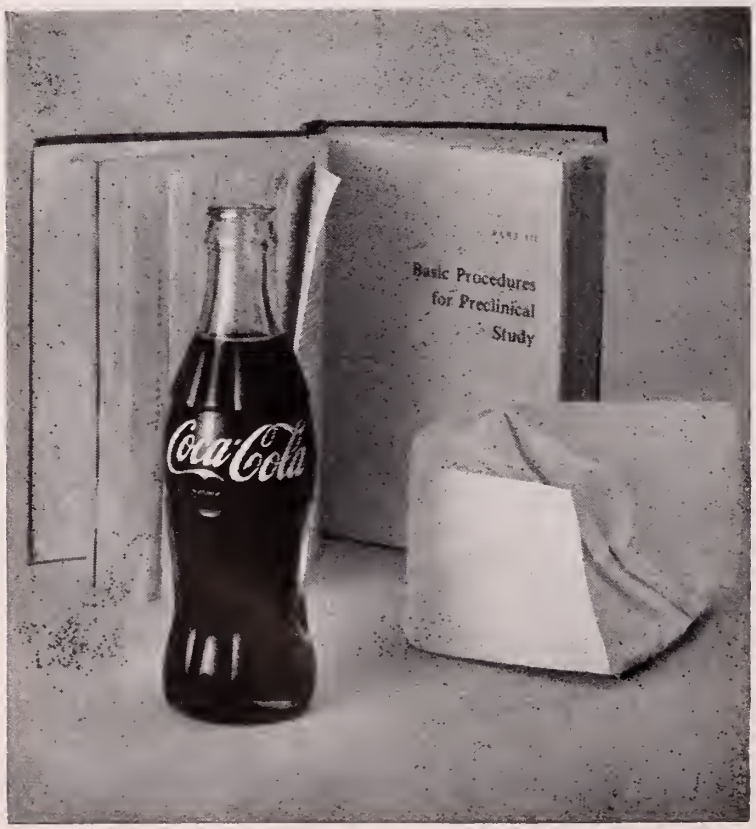
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the JOURNAL

of the

OKLAHOMA

STATE MEDICAL ASSOCIATION

601 NW Expressway

Oklahoma City, Oklahoma

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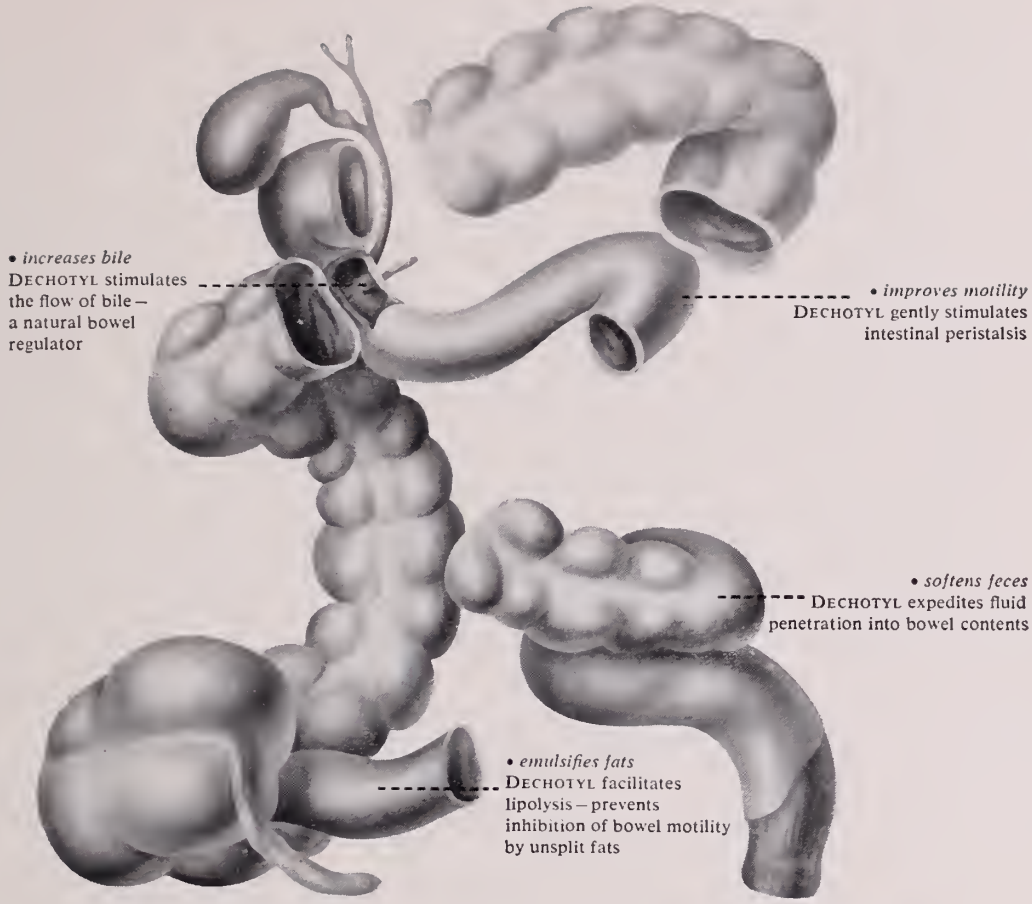
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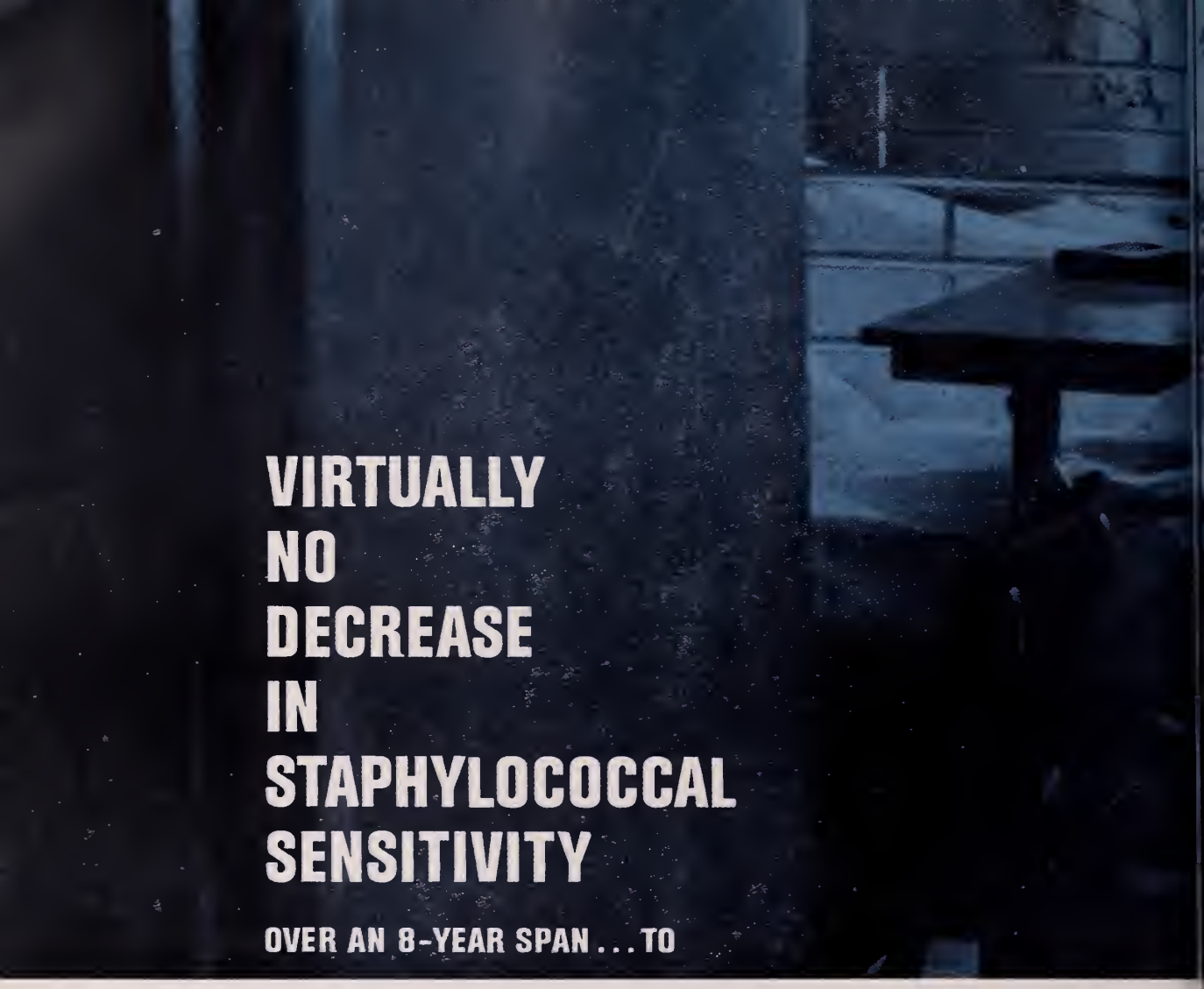
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References: (1) Welch, H., in Welch, H., & Finland, M.: Antihiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 1. (2) Rebhan, A. W., & Edwards, H. E.: *Canad. M. A. J.* **82**:513, 1960. (3) Fisher, M. W.: *Arch. Int. Med.* **105**:413, 1960. (4) Finland, M., in Welch, H., & Finland, M.: Antibiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 187. (5) Bercovitz, Z. T.: *Geriatrics* **15**:164, 1960. (6) Glas, W. W., & Britt, E. M.: Management of Hospital Injections, in Symposium on Antihacterial Therapy, Michigan & Wayne County Acad. Gen. Pract., Detroit, September 12, 1959, p. 7. (7) Staphylococcal Infections in Pediatrics, Scientific Exhibit, Commission on Professional and Hospital Activities, 108th Ann. Meet., A. M. A., Atlantic City, June 8-12, 1959. (8) Robinson, H. M., Jr.; Robinson, R. C. V., & Raskin, J.: *Postgrad. Med.* **27**:522, 1960.



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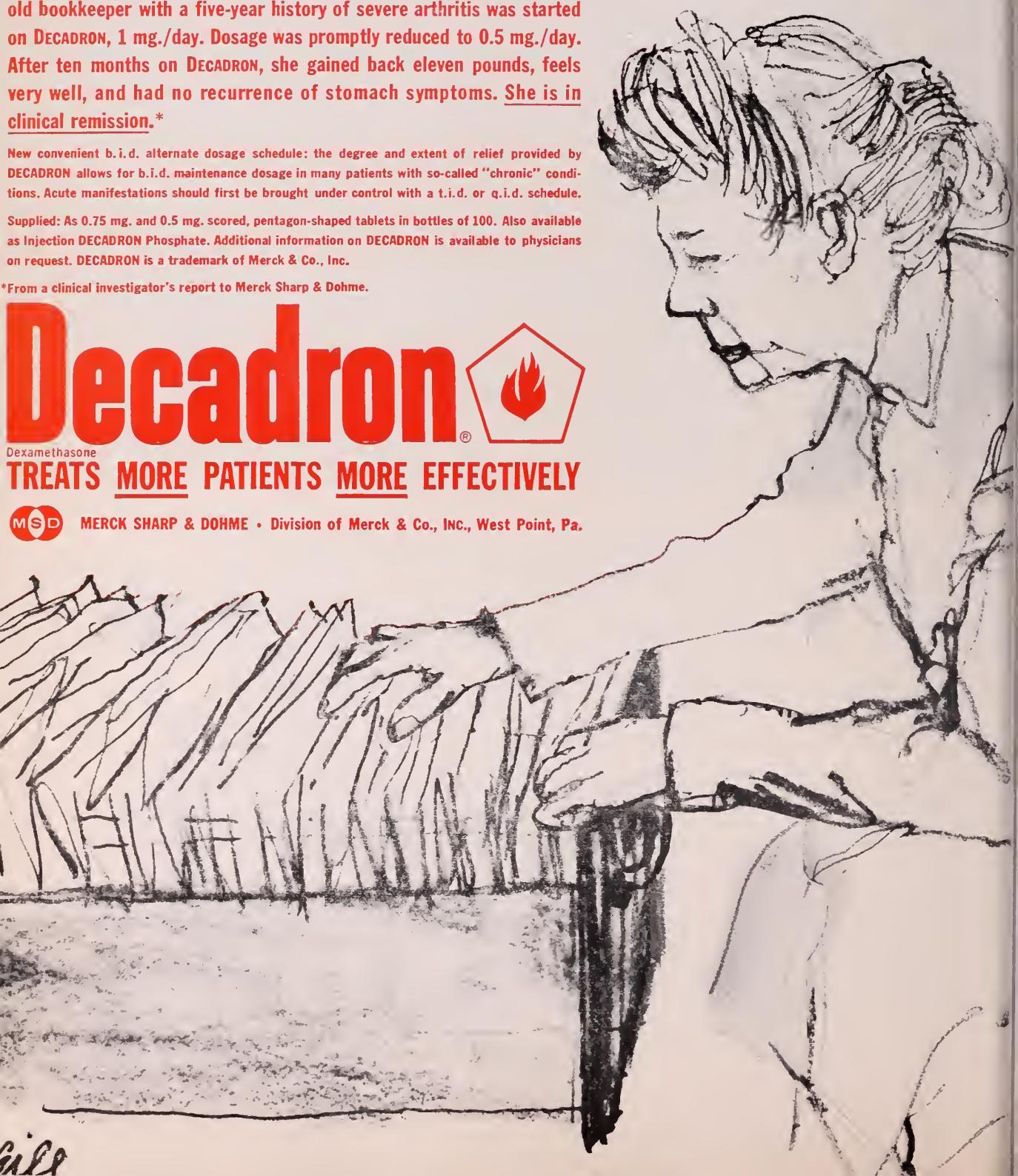
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INDICATIONS

HEAD: temporomandibular muscle spasm • NECK: acute torticollis, osteoarthritis of cervical spine with spasm of cervical muscles, whiplash injury • TRUNK AND CHEST: costochondritis, intercostal myositis, xiphodynia • BACK: acute and chronic lumbar strains and sprains, acute low back pain (unspecified), acute lumbar arthritis and traumatic injury, compression fracture, herniated intervertebral disc, post-disc syndrome, strained muscle(s) • EXTREMITIES: acute hip injury with muscle spasm, ankle sprain, arthritis (as of foot or knee), blow to shin followed by muscle spasm, bursitis, spasm or strain of muscle or muscle group, old fracture with recurrent spasm, Pellegrini-Stieda disease, tenosynovitis with associated pain and spasm.

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References: 1. Steigmann, F., **et al.**: Am. J. Gastroenterol. **33**:109 (Jan.) 1960. 2. Hock, C. W.: to be published. 3. Leming, B. H., Jr.: Clin. Med. **6**:423 (Mar.) 1959. 4. Data in Roerig Medical Department Files.

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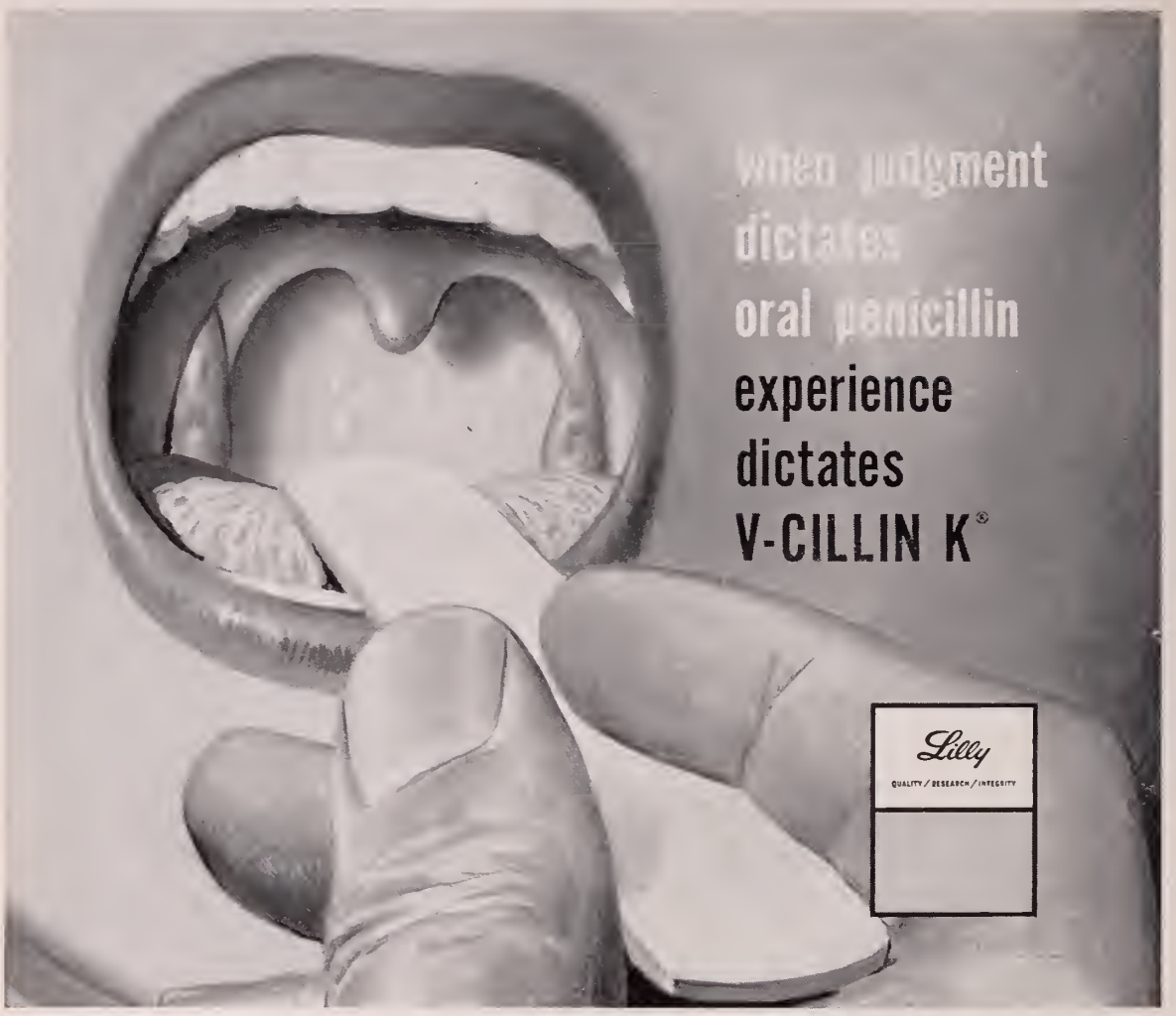
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1. Griffith, R. S.: Comparison of Antibiotic Activity in Sera Following the Administration of Three Different Penicillins, Antibiotic Med. & Clin. Therapy, 7:No. 2 (February), 1960.

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Editorial

Talking Sense

"If the technique of reducing ideas to a simple form, and placing them in logical order, were carried out extensively, only a few of our clinical ideas would come through unscathed.

> " 'Our path is cumbered with guesses, presumptions and conjectures. The untimely and sterile fruitage of minds which cannot bear to wait for the facts, and are ready to forget that the use of hypotheses lies, not in the display of ingenuity, but in the labour of verification.'—Clifford Allbutt.

Stress

"Consider the ubiquitous stress factor, now accepted as the origin of many modern diseases—peptic ulcer, asthma, and ulcerative colitis. Here is a particularly well-written passage on this subject, from the pen of a distinguished physician:

> " 'Peptic ulcer—one of the pestilent camp followers of civilization—one of the penalties we pay for our boasted progress, seems to be more than keeping pace with our advancement, and to be attaching itself especially to certain forms and phases of civilization. There is reason to believe that it is, if not of modern origin, at least of modern growth, and that modern habits and modern modes of life have something to do with its propagation. This is essentially a feverish and fidgetty age, in which an unappeasable restlessness pervades all ranks and classes. The struggle for existence has become a melee, and the recommendation to "commune with your own heart in your chamber, and be still" is looked upon as an obsolete adage. The result of all this ceaseless agitation and ambitious striving is that the gastric mucosa often gives way under the strain imposed on it. By a hideous kind of poetical justice, peptic ulcer has become a distorted reflection of the follies of the age. It is the miserable otium cum dignitate of the man of business.'

"May I now admit, with apologies, which are not very sincere, that I have been guilty of a trick. I deliberately altered two words in that passage. Wherever it said 'G.P.I.', I substituted the words 'peptic ulcer', and where it mentioned 'the nervous system', I wrote in the words 'gastric mucosa'. Apart from that, those are the actual words spoken by Dr. James Crichton-Browne in 1871, about the cause of general paralysis of the insane, at the seventh meeting of the Medico-psychological Association.[1] It makes one think. We hold such very different views about the cause of G.P.I. today. It can still provide otium for business men, but cum much less dignitate.

"In the case of psychosomatic disease, are we not reasoning as follows: the pace of modern life is going up; the incidence of peptic ulcer is also going up; therefore the pace of modern life is the cause of peptic ulcer? What prices 'guesses, presumptions, and conjectures'?

"Why indeed is it so often presumed that the speed of civilisation always involves stress and strain? Crossing the Pacific in a Comet is less strain than crossing it in a coracle, and cave-men were probably as much troubled by shortages of suitable flints as modern man is troubled by his income-tax.

"The danger of psychosomatic explanations for unexplained diseases is that they are so easy to find and provide such a comforting illusion that something has been explained, when it has not. That is why I regard Crichton-Browne's remarks on G.P.I. as a valuable warning.

Comforting Illusions

"It is important to recognise that things are much easier to believe if they are comforting, and that many clinical notions are accepted because they are comforting rather

From the third Lettsomian Lecture by Richard Asher, M.D., F. R. C. P., delivered before the Medical Society of London on Feb. 16, 1959. Abstracted by permission from *The Lancet*, 2: 417 (Sept. 26) 1959. See the JOSMA, July and August for abstracts of the first and second lectures.

1. F. ment. Sci. 1871 - 72, 17, 147.

than because there is any evidence to support them. Just as we swallow food because we like it, and not because of its nutritional content, so do we swallow ideas because we like them and not because of their rational content.

"Crawshay-Williams'[2] penetrating philosophical study of irrational thought called The Comforts of Unreason is a work I have found most enlightening, and its list of what he calls 'comfortable concepts' is highly informative. One comfortable concept, which most of us accept without being aware of it, was heartlessly exposed by Dr. Ronald Bodley Scott in a previous Lettsomian lecture. 'The science of therapeutics,' he said, 'is founded on the touchingly naive assumption that there is an answer to every question it poses.'[3] How uncomfortably true that is, and how few people have the courage to say it! We always say 'What is the treatment of this disease?' rather than 'Is there a treatment for this disease?' Even the expression 'effective treatment' is a quaint one. We do not talk of 'mobile motor-cars': we assume that they move, because that is their purpose and function. Logically we should not give treatment unless it is effective.

"From this I obtain a concept which I believe to be true but which I find too depressing to accept: 'It is better to believe in therapeutic nonsense than openly to admit therapeutic bankruptcy.' (Better, in the sense that a little credulity makes us better doctors though worse research-workers.) I find this very uncomfortable. If you admit to yourself that the treatment you are giving is frankly inactive, you will inspire little confidence in your patients (unless you happen to be a remarkably gifted actor), and the results of your treatment will be negligible. But if you believe fervently in your treatment, even though controlled tests show that it is useless, then your results are much better, your patients are much better, and your income is much better too. I believe this accounts for the remarkable success of some of the less gifted but more credulous members of our profession, and also for the violent dislike of statistics and controlled tests which fashionable and successful doctors commonly display. It is an almost insoluble problem, and the majority of worthwhile doctors are driven to a compromise in which they muster enough genuine belief in their treatment to keep their patients happy and maintain their own self-respect, while preserving enough doubt to admit their inadequacy during transient bouts of uncomfortable honesty.

" The laity are equally prone to adopt comfortable concepts. One of the most irrational and comforting delusions held by the layman is the notion that his body is really a kind of motor-car. 'I feel much better now you've given me a thorough overhaul' is a remark I have heard on many occasions. Doctors are often guilty of nourishing this delusion when they make remarks such as 'You'd better come in for a complete check-up.' Behind all this lies the delusion that the physician is likely to remedy defects as he finds them—applying a little oil here, fitting a replacement there, and possibly clearing out a blocked pipe. Business men and high-up executives like to have 'complete check-ups' at regular intervals, when they can go into a clinic for a lot of expensive investigations. This emphasises their importance ('we always have the Rolls decarbonised every 5000 miles to keep it in tip-top condition, but we don't bother about the utility van'), and also it gives them a feeling of security, as they come out of the clinic rejuvenated by a comforting illusion of physical decarbonisation. But the analogy with motor-car engines is false, and the only point where it applies is that when the trouble is very serious the patient is likely to be returned to his Maker.

" I do not deny that most cases of hypochromic microcytic anaemia are caused by lack of iron, but I do criticise the term 'iron-deficiency anaemia' to describe the appearance of the film. First, because this is unjustifiable in logic; secondly because it involves naming by supposed cause and not by observed fact; and thirdly because it contains an important assumption. It assumes that this anaemia is an illness—that something is wrong, and that it needs putting right. This assumption may be correct, but we ought to be aware of it.

2. Crawshay-Williams, R. London, 1947.
3. Scott, R. B. Trans. Med. Soc. Lond. 1957, 73, 132.

" You cannot say what things are abnormal till you have agreed on what is normal. You cannot describe disease without describing ease first.

"This cardinal principle is often forgotten —as it applies to the word 'constipation', for instance.

"Here we have all the elements of confusion. First are we naming the state of the bowels or the symptoms we attribute to that state? Secondly, are we naming an abnormality, or making a neutral statement about a function? If a man's bowels are usually open on alternate days, and he comes into hospital 36 hours after they were last open do we correctly write in the notes 'constipated for 36 hours', or does this not differ in meaning from the statement 'bowels last open 36 hours ago'? It is too easy to assume that the frequency or regularity of normal bowel action has been decreed by some natural law. We behave as if the human colon had been supplied with a maker's tag reading 'This tube should be cleared out once every 24 hours'. We never lay down a statutory number of times that the bladder should be emptied each day. Why not? Why do we do so with the bowels? What is constipation? I looked the word up in my dictionary and it said 'costiveness'. Then I looked up the word 'costive' and it said 'contipated'. So I cannot answer the question, or the many others I raised in connection with it.

"I can only reiterate Allbutt's words: 'Our path is cumbered with guesses, presumptions and conjectures.'

* * *

"I turn with relief to the more solid ground of common sense—the capacity to see the obvious even amid confusion, and to do the obviously right thing instead of working to rule.

"When I was a boy, I was skating on the lake of Earls Colne Priory, when a lady fell and broke her leg. Many of the bystanders were acquainted with the rules of first aid and knew just what to do—'keep her warm' and 'Do not move her till the doctor comes.' Maids hurried from the house with hot drinks, hot water-bottles, and luxurious furs: Nutria lay upon beaver, and musquash was piled on mink. I skated gently around the stricken lady who groaned beneath her expensive load. The doctor seemed to be hours coming; so more hot bottles were added. Suddenly a matter of elementary physics began to be apparent: warmth melts ice. There were ominous cracking sounds; first-aid principles were forgotten, common sense was remembered—and we got her off the ice just in time. A few more seconds and that lady, together with a very valuable collection of furs, would have been lost."

New Film Outlines Doctors' Role in OASI Disability Program

A new film presentation on the Old-Age and Survivors Insurance disability program is now available for showing to physicians and allied professional personnel.

Produced and released by the Bureau of Old-Age and Survivors Insurance with the cooperation of the American Medical Association, the film is entitled "The Disability Decision."

First shown at the American Medical Association's Annual Meeting in June, the film is a highly professional product using case histories to illustrate the problem of communication involved in obtaining sufficient information about each specific disability case and also in giving both the physician and his patient an understanding of just what the law means by the term "disability." Emphasis is placed on showing physicians why a full medical picture of the patient's condition, including history, physical findings, laboratory data, diagnosis and description of residual function is required to determine whether or not the patient meets the definition of disability under the law.

Prints of the 16mm black and white 30-minute dramatic presentation are now available (return postage only) from the American Medical Association Film Library, and social security district offices.

Scientific Articles

Infarcted Cysts of the Fallopian Tube

E. EVANS CHAMBERS, M.D.
HENRY T. RUSSELL, M.D.
LILLIAN HARRIS ROBINSON, M.D.

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Henry T. Russell, M.D., a graduate of Washington University School of Medicine, has been certified by the American Board of Pathology.

In addition to his private practice in Oklahoma City, Doctor Russell is visiting lecturer at the University of Oklahoma School of Medicine.

Doctor Russell is a member of the American Society of Clinical Pathology, the College of American Pathologists and the International Academy of Pathology.

Lillian Harris Robinson, M.D., graduated from Tulane University School of Medicine in 1942. She is a member of the American Academy of General Practice and Alpha Omega Alpha. In addition, Doctor Robinson is a member of the Oklahoma State Board of Medical Examiners.

DURING a six month period, two cases of infarcted cysts of the fallopian tube were seen by the authors. This entity is apparently extremely rare. Survey of the literature reveals 26 recorded cases of embryologic cysts of the uterine tube (teratomas). However, no reports were found of benign cysts of the tube which became infarcted, resulting in the development of an acute surgical abdomen, except for a few instances in which torsion of the cystic tube had occurred. Cysts of the tube are mentioned in gynecologic texts along with papillomas, lymphangiomas, lipomas, chondrofibromas, enchondromas, osteomas, teratomas, and hemangiomas as pathologic curiosities. The rare malignant neoplasms of the tube have been reported more frequently than the benign tumors. These include primary carcinomas, chorionepitheliomas and the relatively rare sarcomas.

Case 1. A 17 year old white female was seen on July 31, 1958. Early that morning she had developed a pain low in her right side which gradually became worse. She felt nauseated but did not vomit. She felt better when lying on her side with her knees and hips flexed. System review was essentially negative. She had previously been well except for the childhood diseases. Her menses had been regular since age 13 and aside from occasional heavy flow they were normal. Her last period had begun two weeks previously.

Physical examination revealed a well developed, attractive youngster, 63 inches tall who weighed 126 pounds. Her oral temperature was 99.2F., pulse 88 per minute,



Figure 1. Infarcted tube containing cyst at operation (Case 2).



Figure 2. Wall of "normal" hydatid cyst to show epithelial lining and connective tissue wall. Photomicrograph. 35 X.

blood pressure 110/70 mm. Hg. No abnormalities were found except for tenderness in the lower right abdomen and in the right adenexal region. Her leucocyte count was 8,600 per cubic millimeter with 69% neutrophiles, three of which were stab forms, 24% lymphocytes, 4% monocytes and 3% eosinophiles. Urine analysis revealed no abnormalities.

A diagnosis of acute appendicitis versus ruptured graffian follicle with bleeding was made and a laparotomy was performed. Bloody serous fluid was present in the peritoneal cavity. A moderately inflammed appendix was removed and the stump inverted. A gangrenous cyst like structure about 3 cm. in diameter was seen arising from the fimbria of the right tube. This structure was ligated close to the tube and removed. Postoperatively she had a very smooth course.

Case 2. A 34 year old woman was seen on February 4, 1959. Three days previously she developed pain in her lower abdomen slightly to the left of the midline. At this time she was just finishing a menstrual period. The pain gradually became worse and seemed to shift to the right lower quadrant of the abdomen. She had some nausea but no vomiting and her temperature was elevated one degree. On the morning of admission to hospital, her pain had become so much worse that she was unable to walk without bending over. System review was essentially negative. In the past, she had noticed mid-period pain in the region of one of her ovaries on several occasions and had been thought to have ovulation bleeding. Aside from the childhood diseases she had had no previous illnesses. Her menses had been regular and normal since age 14. She had had two normal pregnancies.

Physical examination revealed a well developed overweight white female, 67 inches tall, weighing 210 pounds. Her oral temperature was 99.6F., pulse 90 per minute,



Figure 3. Case #1 showing hemorrhagic infarcted wall of cyst. Photomicrograph. 35 X.



Figure 4. Case #2 showing infarcted wall of cyst. Photomicrograph. 35 X.

blood pressure 150/80 mm. Hg. Abnormal physical findings were limited to the abdomen and pelvis. There was rather marked tenderness and some rigidity in the lower right quadrant of the abdomen. The lower abdomen was also tender and slightly rigid. No masses could be palpated in the abdomen. On pelvic examination the uterus was found to be very tender when moved and the adenexal regions were exquisitely tender. No definite adenexal masses could be palpated.

A diagnosis of ruptured graffian follicle with bleeding was made and she was operated. A small amout of blood was present free in the peritoneal cavity. The left fallopian tube was found to be twisted at the junction of the proximal and middle thirds. A large cyst like structure was present in the distal third of the tube. It was gangrenous and grossly resembled a tubal pregnancy. Because of the torsion of the tube, the distal third containing the cyst lay just to the right of the midline. The left tube and ovary and the appendix were removed. Her convalescence was smooth and she left the hospital on the eleventh postoperative day.

Pathology. Hydatid cysts of Morgagni are examples of a group of cysts arising from Gartner's duct, which is a residual of the Wolffian body. The entire group is classified as paraovarian cysts. When these cysts arise from near the blind end of the tube they are called hydatids (Greek hydatis, a drop of water) of Morgagni or cysts of Morgagni.

Structurally these cysts are quite simple. They are usually unilocular. They have a thin wall composed of firm, fibrous connective tissue and varying amounts of smooth muscle. The internal surface is lined by columnar or cuboidal epithelium which is usually flattened in the larger cysts. The lumen is filled with thin clear fluid. These cysts rarely exceed 2-3 cm. in size, but they may occasionally be larger.

Novac states that such cysts are "of no special clinical significance except in the very rare case where the long thin pedicle may bring about intestinal angulation or obstruction." Faulkner and Douglas concur in this opinion.

In the first case, the gross specimen measured 4 x 3 x 1.5 cm. and was slightly club-shaped. The wall was variable in thickness and ranged from 0.5 cm. in thickness to 0.1 cm. There was extensive hemorrhage in all parts of the wall and within the lumen. The internal surface was fairly smooth. Microscopically, the cyst was lined by one to two layers of flattened, but uniform cuboidal cells. The smooth muscle and connective tissue of the wall were widely separated by extensive hemorrhage, and the blood vessels were dilated and engorged. The hemorrhage showed no degenerative changes and the wall structures showed no necrosis. This was considered evidence that the infarct was acute.

In the second case there is less certainty as to the exact nature of the cyst that was infarcted because of the severe degree of infarction. The specimen included a fallopian tube and the distal two-thirds of the tube was also infarcted. Grossly the cystic structure measured 6 cm. in greatest diameter. It was attached to the external surface of the tube but was distinctly external to the tube wall. The wall of the cyst was variable in thickness and ranged from 0.4 to 0.8 cm. The wall was infarcted and hemorrhagic. The internal lining was smooth and the lumen was filled with thin bloody fluid. Microscopically the wall was extremely hemorrhagic and moderately necrotic. The blood vessels were dilated and engorged. No definite epithelial lining could be demonstrated. It can be seen from this description that microscopically this structure cannot be identified definitely as a cyst of Morgagni. However, grossly it was quite typical in location and was definitely not a part of the fallopian tube wall or a part of the ovary.

Comment. The symptoms of infarcted cyst of the fallopian tube are quite similar to those of appendicitis, torsion of an ovarian cyst, or bleeding ovary. Torsion of the tube occasionally produces infarction and results in an acute surgical abdomen. Torsion is more likely to occur in tubes containing a cyst or other anatomical abnormality. In the second case, torsion of the tube was present. However, in the first case, no torsion had occurred and the symptomatology was thought to be due to the gangrenous cyst of Morgagni. The incipient appendicitis was thought to be secondary to the very acute process in the cyst. It is quite possible that this condition may be encountered more frequently than survey of the literature would indicate.

Summary. Two cases of infarcted cyst of the fallopian tube are reported. One was definitely a hydatid cyst of Morgagni. The other was so necrotic that positive identification was impossible, although its location and structure indicated a similar origin. Torsion of the tube had occurred in one patient. Both patients presented symptoms of an acute surgical abdomen.

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This article has to do with the treatment of the common foot problems which unfortunately have been badly neglected in most medical schools.

The diagnosis and treatment of fallen and longitudinal and transverse arches, callouses, corns, bunions, hammer toes and positional foot problems in children are presented.

Common Foot Problems and Their Treatment*

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Doctor Scuderi is a member of the American Orthopedic Association, the American Academy of Orthopedic Surgeons, the Clinical Orthopedic Society and the American Association of Surgery of Trauma.

He is past-president of the Chicago Orthopedic Society.

Introduction

THE TREATMENT of common foot problems has been seriously neglected by all medical schools throughout the country. Unfortunately, more and more emphasis is being placed on major surgical procedures than on minor procedures such as painful feet and yet there are as many people having trouble with their feet as there are those that are having trouble with their eyes. One does not have to look very far to notice the number of people in our modern civilization who are wearing glasses.

The lack of interest in the treatment of foot problems probably originates from the inadequate training of the medical student so that he has no interest or very little understanding of what constitutes a poor problem and what is the treatment of this problem.

Physiology of Walking

Although all of us walk a good part of each day of our life, the mechanics of walking are not commonly understood any more than the average physician understands the true mechanism of respiration, in spite of the fact that under ordinary circumstances breathing is done ten to twenty times every minute of his life.

When an individual walks, the first part of the foot to strike the ground is the soft tissue on the plantar surface of the os calcis (Figure 1-A). As the weight comes forward the weight is then transferred to the metatarsal area of the forefoot (Figure 1-B).

At this stage of the walking, the foot is in a minimal amount of supination. As the weight is transmitted to the front portion of the foot, it is then rapidly transmitted across the transverse arch to the head of the first metatarsal (Figure 2).

When the entire metatarsal area is in contact with the ground the weight distribution in this area is in the relationship as shown in Figure 3. The first metatarsal head carries two-sixths of the total body weight

*Presented before the Oklahoma Academy of General Practice, Oklahoma City, February 15 and 16, 1960.

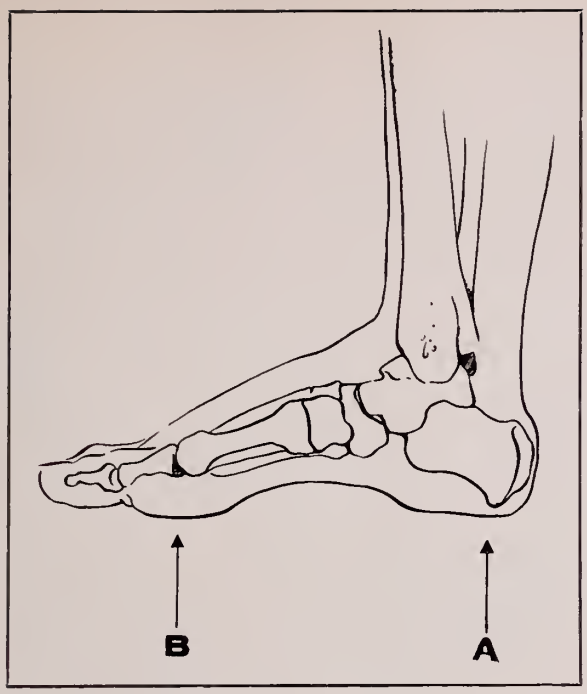


Figure 1. Schematic lateral view of the foot.

A. Soft tissues over the os calcis that in walking first come in contact with the ground.
B. Metatarsal area which comes in contact with the ground when the weight is shifted to the forefoot.

while each of the other four metatarsal heads, carry one-sixth of the total body weight. This is true under normal weight distribution when there are no displacements of the metatarsal heads.

As the weight comes forward the propulsion power in walking is exerted by the large toe. It is the propulsion power that gives us the spring in walking. This is produced by the forced plantar flexion of the large toe.

It is a lack of understanding of this propulsion power of the large toe that leads to many types of bunion operations that are harmful. Any type of operation of the large toe area that interferes with the working mechanism of the large toe contributes a surgical disability to this individual. For this reason, resections of the head of the first metatarsal to shorten it, such as done in the Mayo operation or the removal of the proximal half of the proximal phalanx of the large toe such as is performed in the Keller operation produce impairment in propulsion power and therefore a loss of the spring of walking. There is no question

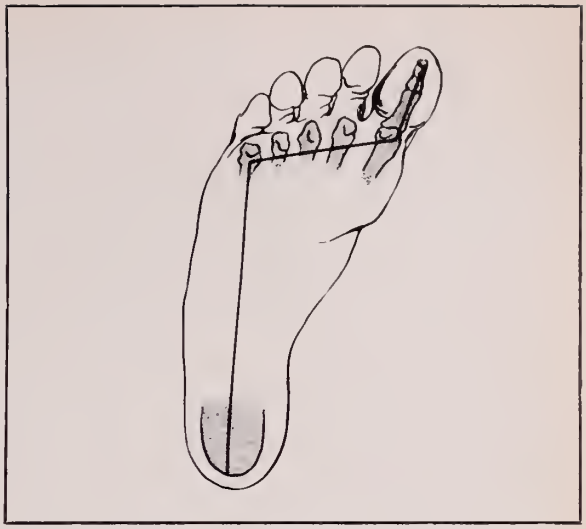


Figure 2. Plantar Surface of foot showing the most important points of ground contact in walking. After the heel strikes the ground and the weight is shifted forward, the weight is then brought to bear on the head of the fifth metatarsal. From there the weight is shifted to the head of the first metatarsal. The push off power of spring in the step is produced by the plantar flexion of the large toe.

that under certain circumstances the Keller operation is definitely indicated, and that is when a hallux rigidus exists.

A great deal of research work has been done on the amount of weight that is borne on the metatarsal head under normal circumstances. This is subject to a great deal of controversy, but to the best of the author's knowledge, as described previously, the distribution of weight is in the ratio of 2-1-1-1-1, the greatest portion of the weight being on the first metatarsal head. Very frequently a falling of the transverse arch produces pain and discomfort to the patient

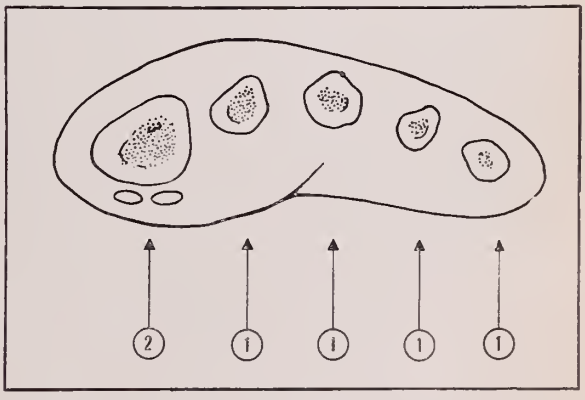


Figure 3. The normal weight distribution to the metatarsal area is shown on this drawing. One third of the total weight is borne by the first metatarsal head.

because of abnormal weight bearing and in some instances there is actual pinching of the intra digital nerve. There is a secondary involvement of the skin with callous formation as a result of abnormal weight bearing. The simple inspection of the plantar surface of the foot shows whether or not there is abnormal weight bearing present, and nature shows us exactly where the abnormal weight bearing is. When the person has a fallen transverse arch, the distribution of weight may shift considerably, for example the weight bearing may be in the relationship of 1-2-2-1-0 with the second and third metatarsal heads each carrying two-sixths of the total body weight, therefore two-thirds of the body weight is being carried on the second and third metatarsal heads (Figure 4). A callous rapidly forms in this area.

Women's Footwear

It is common knowledge that more women have trouble with their feet than men. Not very long ago a colleague of mine asked how many bunion operations I had done on male patients in the last five years. I was somewhat embarrassed when I realized that I could not recall a male patient that had a bunion operation but I could recall dozens and dozens of women patients that I have performed bunion operations upon, in the last five years. There is a reason for this.

The present style of women's footwear has a very high heel somewhere between three

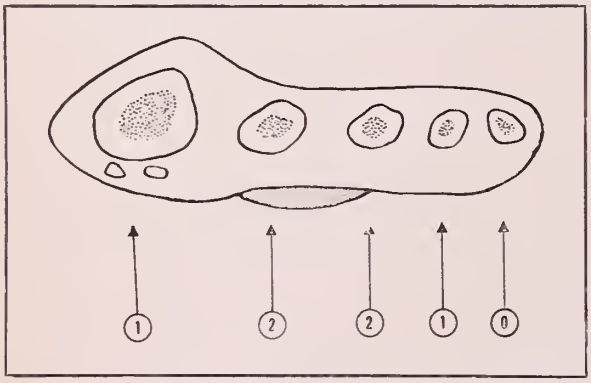


Figure 4. Abnormal weight bearing produces the greatest portion of the weight to be carried on the heads of the second and third metatarsals. A resulting callous occurs in this area, illustrated by the shaded part in the drawing.



Figure 5. The present style in women's shoes throws the majority of the total body weight on the metatarsal heads. This is an area which was never intended by nature to carry all this weight. This causes a break down of the metatarsal arch.

and four inches in heights with very pronounced pointed toes. When a woman gets on high heels most of her body weight is transmitted to the metatarsal head (Figure 5), instead of being primarily borne on the os calcis area. In addition to this body weight being in an abnormal location of the foot, the toes and the front portion of the foot are jammed into a wedge shaped pointed toe of the shoe. The large toe because of its size has seniority, and therefore occupies the medial half of the toe of the shoe. The other four toes have to be squeezed and overlap one another as best they can, and invariably the fifth toe develops callouses, becomes distorted in shape, and overlaps the fourth toe (Figure 6). The second, third and fourth toes overlap and squeeze one another into the most grotesgue disfigurations. It must be accepted by the treating physician that he is not going to change women's styles and therefore he must go along and do the best he can with the present styling of women's shoes.

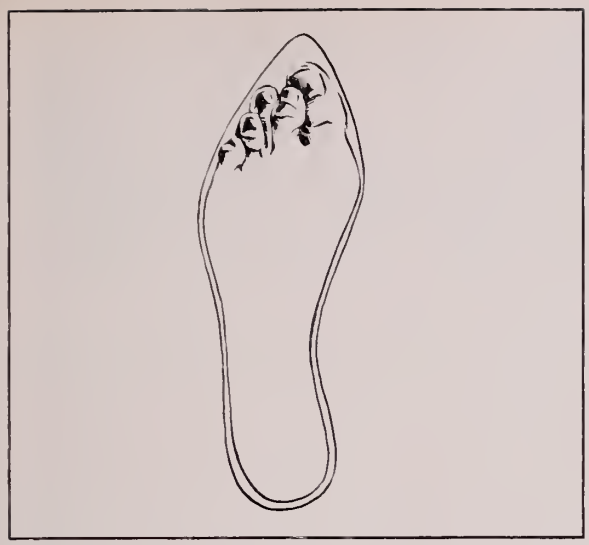


Figure 6. The pointed toes of modern women's footwear, pinches the toe together, producing grotesque deformities and many abnormal pressure points.

Paraphenalia for Foot Examination

If one is going to treat certain foot problems, he must by necessity have certain equipment. Since most of the foot problems start with improper shoes one must have a measuring device to determine the length and width of a proper fitting shoe. The one device which has been most suitable to the author is called the Brannock Device, which is used by many shoe salesmen. This gives the heel to ball and heel to toe measurement, and also the width of the foot. The most important measurement is the heel to ball measurement. This is the essential part of the weight bearing portion of the foot, and in individuals who have long or short toes the overall measurement may vary considerably, from the heel to ball measurement. When there is a discrepancy between the two, the heel to ball measurement is the one of critical importance and this is the size shoe that the patient should wear. Invariably, especially in women, the shoes are much narrower than the measurement on the Brannock Device. Here it requires the judgment and skill of a Socrates to inform a woman that she should wear a wider shoe and fortunate is the doctor who has the "know-how" to convince a woman of this fact.

Facilities to get weight bearing foot imprints must be available in order to determine points of excessive pressure on the plantar surface, and also the contour of the longitudinal arches.

The author has tried many methods. The one which he is using at the present time is the one made by Scholl's Manufacturing Company. It is a sheet of paper upon which an inking pad comes in contact. Over this there is a rubber sheet upon which the patient puts his foot. The patient stands on this rubber covered pad, and then this in turn transmits an imprint on the underlying paper. It shows the longitudinal arches and from the intensity of the inking on the pad one can determine where the points of maximum pressure are. This pedigraph is shown in Figure 7.

If one does not desire to use this pad, other methods are available. The solution made out of the following prescription, Tincture of Ferric Chloride, 50% ; Alcohol 45% ; Glycerin 5% ; can be applied on the plantar surface of the foot with a one inch brush. The patient then steps on plain white paper. This leaves an orange type imprint on the white paper which is permanent. It has one disadvantage, however, that Tincture of Ferric Chloride does not come off with soap and water and has to be removed by alcohol. Another method which the author has used for some time is the use of orange litmus type paper which is made by the Kleistone Rubber Company of Warren, Rhode Island. This requires the application of a saturate solution of Sodium Bicarbon-

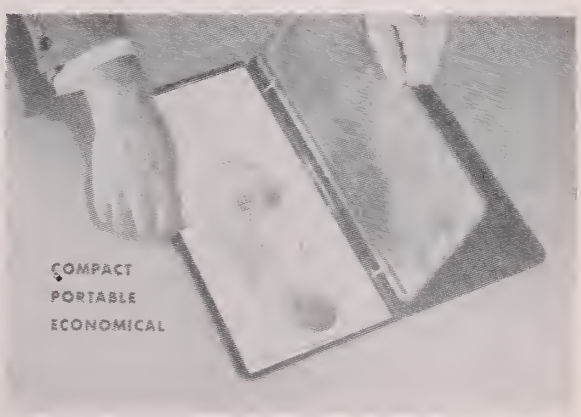


Figure 7. Scholl's pedigraph. This ingenious device uses the principle of an inking pad without soiling the foot. Abnormal pressure areas appear as darker spots. This is an excellent method of taking foot imprints.

ate to the plantar surface of the foot with a one inch brush. The patient then steps on the litmus paper and this leaves a permanent imprint. The use of a teaspoon of baking soda in a four ounce bottle of plain water is all that is necessary and this should be shaken each time before use to get the solution in a saturated state. It leaves no staining on the plantar surface of the foot that has to be removed.

Many foot problems require instructions on how to do foot exercises in order to strengthen the intrinsic muscles of the foot. It is very time consuming for the attending doctor to instruct the patient how to do the foot exercises, and very frequently half of them are forgotten by the patient before he gets home and some of the others are not done properly. A number of years ago the Walkover Shoe People put out a very fine booklet with the instructions on foot exercises and they have been kind enough to send me a supply over the years, for a nominal charge. These are given to the patient when indicated. Further discussion will be given later as to the use and indications for foot exercises.

Children's Foot Problems

Practically all foot deformities in infants can be corrected if treated early. Club feet and metatarsus primus varus should be treated as soon as diagnosed, within a few days after birth. All club feet are best treated on diagnosis. Experience shows that the earlier the treatment is instituted the more rapidly will the recovery take place and the end results are far better. Neglected club feet sometimes lead to complications and future operations which are usually avoidable. The exact treatment of these conditions is beyond the scope of this article.

A common problem in children is the toeing in of one or both extremities. This is invariably due to muscle imbalance. The treatment is quite simple. The parents are instructed to externally rotate the feet twenty-five times after each nap and the first thing in the morning when the child awakens. In cases that are persistent the use of Dennis Browne Splints (Figure 8) with a cross bar and the attached shoes is very useful. The affected foot or feet are treated by gradual external rotation of the ratchet on the brace so that the foot is held in progressive external rotation. Usually in a matter of several months this deformity can be easily corrected with no residual bad results.



Figure 8. Dennis Browne splints with everson of the feet, used for children who toe in. This splint with the attached shoes is used during the child's sleeping periods.

When the child is up walking it is important that he wear a rigid shank shoe that has a three-sixteenths inch wedge on the outer border of the sole so that in walking the foot will be constantly turned outward by the wedge and the superimposed body weight.

Toeing out presents another problem. It is important that all children who have a toeing out deformity, especially infants, have an x-ray taken of the hips in both the anteroposterior and frog position to rule out the possibility of a dislocation or a subluxation of the hip. If this exists it must be treated immediately otherwise further difficulties arise with the formation of the acetabulum.

Everyone is acquainted with the fact that the physical findings of a congenital dislocation of a hip are easily recognized if one simply remembers that the condition can exist. The following list presents the pertinent physical findings:

1. The leg is shorter and in external rotation on the affected side.
2. The groin crease and the gluteal crease on the affected side are higher than on the unaffected side.
3. If the knees are flexed and the feet are

placed flat on the examining table the knee on the affected side is lower than the unaffected side because of the posterior displacement of the head of the femur.

4. External rotation is restricted on the affected side compared to the unaffected side.

If no congenital hip dislocation or dysplasia of the hip exists, then the condition is due to muscle imbalance. The parents are instructed to turn the feet in twenty-five times, three to four times a day. In cases that are moderate to severe in nature, they should be treated by the use of Dennis Browne Splint but with the feet turned in inversion (Figure 9).

When these children are up walking they should be fitted with high shoes, with a rigid shank and although it may seem paradoxical the three-sixteenths inch wedge should be on the inner border of the soles so that in walking there is a constant dynamic force that turns the foot in, into the corrected position.

Another complication that one sees in children are the adduction deformities of the large toe or the hallux primus varus. In cases that are seen in infancy it is best that they be manipulated in a plaster cast extending from the tip of the toes to the groin with the knee at right angle, and the ankle at right angle, with the wide adduction of the forefoot. When the correction has been attained or if the child has a mild adduction of the large toe, then the use of pigeon toe shoes are advisable. This has an abduction of the forefoot and also has a wedge of three-sixteenths of an inch on the outer border of the sole.



Figure 9. Dennis Browne splints with inversion of the feet, used for children who toe out. This splint with attached shoes is used during the child's sleeping periods.

Most children's problems can be solved readily if recognized and treated early. It is a common mistake for the parents and the doctor to say that the child will outgrow it.

A common, unrecognized fact is that all children have flat feet until they are old enough to be up and about. Until then they have not had an opportunity of wearing down the fat pad that nature has placed on the plantar surface. Invariably a mother will bring a child in and state that the child's feet are flat and that her husband has flat feet and she desires to have something done about it. We know that children with this problem will get well spontaneously, by the use of a small longitudinal arch of both feet. This will quiet the mother, will help in the correction of the problem and in the final analysis will cover the doctor, with perhaps, undeserved glory.

Corns and Callouses

A corn or callous is the result of abnormal weight bearing. The callous itself is a thickening of the epidermis and it is the author's belief that a corn is simply the further progression of this callous formation with a thickened skin and epidermis that runs deeper into the tissues and has what appears to be a core.

In the treatment of callouses and corns the usual problem is tight shoes, or abnormal weight bearing, such as in the metatarsal area. This must be corrected first otherwise the condition will recur regardless of what other form of treatment is used.

It has been found that the local application of 10% Salicylic Acid in flexible Collodian applied every night to the callous is very beneficial in its removal. The following evening the foot should be soaked in real hot water for about fifteen minutes. Some of the callous will come off spontaneously after each soaking.

The use of a cutical cutter, such as used in trimming the finger cuticle or a very sharp thin knife or a razor blade is advantageous in trimming down the callous, if it is thick.

Under this regime callouses and corns can be taken care of.

Fallen Arches

Everyone recognizes the fact that there are two arches in the foot a longitudinal and transverse arch.

It is axiomatic to state, that a painless flat foot should be left alone. It is only when the flat foot gives rise to symptoms that it should be treated.

The usual etiological causes for flat feet are the following:

1. Obesity.
2. Poor walking position with the foot in external rotation.
3. Occupations in which the patient must be on his feet for long periods of time, such as a postman, policeman or waiter.
4. Cement pavement upon which people have to stand for long periods of time during their occupations, such as sales people and people who work at machines.

Sometimes there is an element of simple weakness of the longitudinal structures, and the calcano valgus position of the heel is a very common etiological cause for flat feet, especially in young people.

The treatment of the longitudinal foot problem depends on the degree of the pathology.

If the cause is overweight, this might be corrected. If the cause is occupation it is not always easy to change the occupation and one will have to do things to help the feet counteract this occupational stress.

If the heel is in a calcano valgus position, the use of a Thomas heel which is about half an inch longer on the medial border than the lateral border is advantageous. The use of a wedge on the medial border of the heel about one-eighth or three-sixteenths of an inch will get the calcano valgus into a more normal position.

The use of longitudinal pads is important. They should be placed so as to relieve the patient of his discomfort and they should be built up only to the extent that it is necessary to relieve the symptoms. The height of the pad is not as important as the symptomatology. Commercial pads are available that are made out of sponge rubber and leather and these are the ones that are recommended by the author. They can be purchased through many supply houses throughout the country but the ones that the author has used for years are made by the Kleistone Rubber Company at Warren, Rhode Island.

Construction of the shoe is important. Individuals who are overweight and who break down the shoes readily should have special shoes with a rigid shank, giving them rigidity. A long counter, which is a fiber type of reenforcement between the leather layers on the inner or medial border of the shoe, gives additional support and the patient cannot break down the shoe readily. This happens all too frequently in overweight people, especially those of advanced ages.

Exercises are important. This is especially true in young people. The booklet which has been recommended, published by the Walker Shoe Company, serves this purpose very well. The exercises should be done every night before going to bed, for five to ten minutes depending on the degree of the patholcgy and the cooperation of the patient.

The three principle exercises which are recommended are:

1. The coming up on the toes on the count of one, the coming down on the lateral aspect of the foot and curling the toes in on the count of two and the placing of the foot in the normal position at the count of three. This is done rhythmically twenty-five to thirty times each evening.
2. Walking on the lateral aspect of both soles with the toes curled under. This places the heel in a marked calcano valgus position. The patient should walk

the length of the bedroom, fifteen times each evening.

3. Improvement of the function of the short flexors and the plantar structures of the foot by exercising the toes in the flexion position over the end of a large book. The exercise of trying to pick up a handkerchief or marbles or a pencil with the bare feet. This is achieved readily by children but is quite difficult for older people.

The treatment of the fallen transverse arch is not too difficult, when one realizes as stated above, that the distribution of the weight over the metatarsal heads is very important. Nature has been very kind in producing a callous where there is too much weight and if the examining doctor will simply examine the bottom of the foot he can see where the abnormal weight is being borne. The callous must be treated locally by the use of 10% Salicylic Acid in flexible Collodian and by trimming the callouses each evening as stated previously. A proper fitting pad should then be inserted into the shoe under the metatarsal region. This cannot be done by guess work. It must be done accurately. The measurement is made from the back of the callous to the back of the heel and then this exact measurement is placed into the shoe. The metatarsal pad is then inserted accurately in this area, usually starting with the low metatarsal pad. The pad is increased in size until the patient is free of symptoms. Usually the pad will feel strange for a matter of a week or ten days. The patient should be informed of this. If his symptoms are not relieved then a larger pad is placed in the shoe until he is comfortable. Once the patient is comfortable no further change in the pad should be made.

The author thinks that one is better off with a pad that is glued into the shoe and stays in a fixed position rather than having a pad that can be moved from one shoe to the other, and never in quite the same position.

When a metatarsal pad is used it is necessary that the patient have a closed heel and closed toe shoe, otherwise it probably will be unsuccessful. It is very difficult to put a metatarsal pad in the shoe and have it work successfully if the patient is on a high heel with an open toe. For this reason when metatarsal pads are inserted it is best that the patient be on a Cuban heel or a nurses shoe, with a heel that is not higher than one to one and a quarter inches.

Painful Heels

Very commonly patients complain of pain and discomfort in the heel. Surprisingly few people have a calcaneal spur. This can be best diagnosed by a lateral x-ray film. If the calcaneal spur is present it is sometimes necessary to remove it surgically if conservative management has failed. The conservative management will be described shortly.

Many people have a bursitis over the os calcis that gives then this pain and it is important that the pressure be relieved from this area. Some medication should be given by mouth to reduce the inflammation in this area. Some believe that the pathologic change is similar to that found about rheumatoid joints.

The insertion of heel pads with a circular opening in the center or the use of half moon heel pads so that the pressure is sustained on the periphery rather than on the center is very worth while. The use of different size heels in several pairs of shoes is worth trying. The patient should have one pair of shoes with heels one-half inch higher than the standard height. On alternating days the shoes are changed with the regular shoes so that the weight is never quite in the same place in the heel on two consecutive days. If the patient feels better with one pair than the other then he should wear the shoe with the heel height that gives him the most relief.

The soaking of the feet each night in hot water with a level tablespoon of Epsom salts to a gallon of water seems to give relief to a lot of these people. The application of Analgesic Balm locally after the hot soaks is recommended.

Some form of salicylate seems to help these people and the one that we use is commercially prepared, Pabalate. Other forms

of salicylate therapy, I am sure are equally as good. Under this regime the majority of these people are cured of their painful heels.

In individuals that have calcaneal spurs, the removal of the spur surgically is only indicated after conservative management has failed. It is a well recognized surgical fact that if the pressure is kept off of the spur for a while that nature will lay down a very thick fibrous mass around this calcaneal spur and in many cases the patient will become symptom free.

It is symptomatology and not the x-ray findings that determine whether or not a patient should have surgical treatment.

Foot Problems That Require Surgical Correction

The surgical corrections of certain foot problems should be delegated only to a man who is trained in this particular field. Suffice it to state that such things as hammer toes, bunions, bunionettes, hallux rigidus are definite surgical entities and can be cured successfully by operation. The details of the surgical procedures will not be discussed in this paper since this is beyond the scope of this discussion. These take one far afield from the material which is available or should be used by a man who has not been trained in this particular form of orthopedic surgery. The erroneous belief that many laymen have that bunion operations are not successful or beneficial is not justified. In some instances their reaction is correct, because in the past some of the bunion operations have been harmful. They destroyed the relationship of weight bearing to the metatarsal arch and the propulsion power of the large toe as described previously.

Suffice it to say that everyone should recognize the fact that surgical correction to feet can be done very skillfully and with excellent results. Should a general practitioner be presented with such a problem, then his only decision should be one of referral. They should be sent to men who do this particular type of work. I am sure that in every community there are those who are capable of doing this type of operation very skillfully.

104 S. Michigan Blvd., Chicago, Ill.

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Acceptable for 12 hours Credit, Category 1, by the American Academy of General Practice

The increasing number of our aging population having a C.V.A. with a resulting hemiplegia necessitates the medical profession outlining a rehabilitation program to prevent deformities, endeavoring to help the patient become independent in meeting the demands of daily living.

Hemiplegia and Rehabilitation

GEORGE G. DEAVER, M.D.

George G. Deaver, M.D., graduated from the University of Pennsylvania School of Medicine in 1917 and has been certified by the American Board of Physical Medicine and Rehabilitation.

Doctor Deaver is Professor of Clinical Rehabilitation and Physical Medicine, New York University Medical College and Director of the Department of Physical Medicine, Lenox Hill Hospital, New York.

Among the organizations in which Doctor Deaver is active, are the American Congress of Preventive Medicine, the American Academy of Preventive Medicine and the American Academy of Cerebral Palsy.

IT IS ESTIMATED there are over one million persons who have had a "stroke" and are disabled because of the result of a hemiplegia. It is listed as the third major cause of death, ranking behind heart disease and cancer. The majority of patients who have a C.V.A. do not die during the initial state but live a number of years with their residual disability. Because of the number involved, the rehabilitation of the hemiplegic patient is of great importance.

One of every 200 live births results in brain damage to a child, which is diagnosed as cerebral palsy, and one-third of the total cerebral palsy population are hemiplegic.

In general, the etiology, pathology and disabilities are similar but there is some difference in the rehabilitation program for children and adults, which will be discussed.

Etiology—The principal causes of hemiplegia are congenital, traumatic or due to disease.

Congenital hemiplegia may be the result of absence or malformation of the cranial contents or anoxia and injury at birth. These cases are diagnosed as cerebral palsy.

Traumatic hemiplegia may be caused by fracture, sheer force, bullets or the result of surgical procedures.

Disease which is the most frequent cause of hemiplegia in adults may produce the paralysis by alteration of the architecture of the blood vessels through spasm, thrombosis, emboli or hemorrhage. These changes usually result from cardiovascular disease.

Disabilities which result from a cerebral accident are limitation of motion of the

joints on the affected side and a spastic or flaccid paralysis. There may be a facial paralysis and if the paralysis occurs in the dominant arm, the patient will usually have aphasia.

Evaluation of the Disabilities. If the treatment is started early there will be no limitation of motion at the joints and the affected arm and leg can be passively moved through their normal range. If, however, the patient is not given early rehabilitation, contractures usually result, especially at the shoulder.

A flaccid hemiplegia only occurs in a small percentage of patients. The usual spastic hemiplegia presents the following signs:

The affected arm is internally rotated and adducted and the forearm, wrist and fingers are flexed. When the patient is asked to move his affected arm, he will elevate the shoulder and abduct and internally rotate the arm. When the patient's leg is fully extended voluntary dorsal flexion of the foot is impossible. When, however, the knee is flexed and the patient flexes his hip against resistance, the foot will dorsiflex and supinate. (Strumpell's phenomena).

Some individuals may have an angiospasm of the cerebral vessels and present a typical hemiplegic syndrome. There is usually a complete return of function in a few days. If a patient has a normal return of function in the upper extremity the lower extremity will usually be found to be normal.

The speech disability should be evaluated by a speech pathologist.

Treatment. The purpose of a program of rehabilitation for the hemiplegic patient is (1) to prevent deformities; (2) to treat deformities if they occur; (3) to retrain the patient in ambulation and elevation activities; (4) to teach the patient to perform the activities of daily living and working with the unaffected arm and hand; (5) to retrain the affected arm and hand to its maximum capacity, and (6) to treat the facial paralysis and speech disability if they are present. The rational of treatment is based on man's development of movement through the ages.

1. Prevention of Deformities. The spastic hemiplegic patient, when lying in bed holds the upper extremity in adduction and internal rotation with the elbow, wrist and fingers of the affected part in a flexed position. The affected lower extremity is usually flexed and adducted at the hip joint, the knee is flexed and the ankle is plantar flexed and supinated. If treatment is started within a few days following the cerebral accident there is no need for any special procedures to protect the affected limbs. If, however, due to hemorrhage in the brain or other complications, the patient must remain in bed for a period of time, then procedures must be instituted to prevent deformities.

Procedures. A posterior ankle splint is needed to prevent shortening of the heel cord. A pillow in the axilla will prevent adduction and internal rotation of the shoulder joint which is a frequent residual deformity in hemiplegia. Passive movements of the arm in abduction, external rotation and in the overhead position should be performed several times a day to prevent a "frozen shoulder."

2. Treatment of Deformities. The principal deformities which occur are a "frozen shoulder" and short heel cord.

Procedures. The use of heat and massage to the arm and shoulder are of value in preparing the part for stretching. Passive movements of the shoulder joint are necessary in increasing the range of motion. These exercises can be performed by a therapist, nurse or by the patient.

Exercise I—To prevent a "frozen shoulder joint." Position: Sitting on a chair or lying supine in bed. Instructions: The wrist of the affected arm is grasped firmly and the arm is raised (1) forward and upward; (2) then sideward and upward over the head; (3) the arm is raised sideward, and upward to shoulder level, and then rotated downward and upward.

Exercise II—To maintain full range of motion at the elbow joint. Position: As in

Exercise I. Instructions: The wrist of the affected arm is grasped firmly and the forearm is flexed and extended at the elbow joint.

Exercise III—To maintain pronation and supination. Position: In the sitting position with arms resting on the knee. Instructions: The wrist of the affected part is grasped firmly and the forearm is rotated so the palm of the hand faces upward.

Exercise IV—To maintain extension of the fingers. Position: As in Exercise III. Instructions: The fingers of the affected hand are forced into full extension.

To prevent or maintain the range of motion at the ankle joint the following procedures are suggested:

Exercise V—To maintain dorsal flexion at the ankle joint. Position: Patient is lying in supine position. Instructions: Therapist places left hand on patient's knee and with the right grasps the heel of the foot. Then with the forearm he forces the patient's foot upward and inward.

This exercise is usually all that is necessary to maintain the normal range of motion. If, however, the heel cord has contracted it may be necessary to wear a brace in bed or to surgically lengthen the tendon.

3. To Retrain the Patient in Ambulation.

The primitive pattern of flexion and extension movements at the hip and knee can usually be performed by the patient with spastic hemiplegia who is started on early ambulation. When the knee is fully extended the patient cannot voluntarily dorsal flex the foot. Only man and the monkey have an ankle, and this movement which came late in evolution can never be regained. When the knee is flexed and the patient flexes the thigh the ankle will dorsal flex and usually supinate (Strumpell's phenomena). The patient is usually afraid to place the supinated foot on the floor because of the danger of turning the ankle and falling. To prevent this foot movement he walks with the knee joint fully extended and circumducts the affected lower extremity. This is a slow awkward gait, and if used for a period of time the patient will develop a pattern of walking which will be difficult to correct. It is advisable to prescribe a double bar long leg brace with a stirrup attachment, 90 degree ankle stop and a supinator "T" strap to prevent plantar flexion and supination of the foot.

To retrain the patient's walking pattern, the following method is suggested:

Position: The patient stands with both feet together and balances himself with a cane in the unaffected hand. 1—Steps forward with unaffected extremity. 2—Flex the knee of the affected extremity while the foot is in contact with the floor. 3—Flex the hip, raise the extremity from the floor and step forward and at the same time move the cane forward. The foot will doriflex if the knee is flexed before the foot is raised from the floor.

The therapist can help the patient develop this pattern if he pushes the knee into the flexed position.

A patient with a flaccid paralysis of the lower extremity will usually need a long leg brace with ischial support to begin walking.

Though the patient cannot voluntarily flex his hips when lying in the supine position, he will be able to move the affected extremity forward when standing. The sensory contact of the floor stimulates the reflex pattern of walking.

The flaccid lower extremity should be given re-education, and in the majority of cases hip and knee movements will return and it is often possible to cut the long leg brace down to a short leg brace.

4. To Retrain the Upper Extremity.

As a return of function in the affected upper extremity cannot be expected for a long period of time, if it ever does return, it is essential to teach the patient to care for his daily needs with his unaffected arm. "A lobster can grow a claw, a man cannot, but he has what the lobster does not have, a brain to meet the needs of the situation."

A right hemiplegia in a right-handed person is a serious disability because of the

sensory and motor aphasia and the lack of skill in the left hand to perform the activities essential for daily living. The training of the left hand should be started early as the patient must become left handed if he ever hopes to care for his daily needs. Simple tasks in eating and dressing should be started. Left-hand writing must be practiced as this is an important means of communication, especially when speech is affected.

Training of the affected arm is started while the patient is developing one-handed skills with the unaffected arm. If the arm is flaccid, a reeducation program similar to that used in poliomyelitis should be started. Many of these patients have some return of function if muscle reeducation is carefully given over a long period of time. The rehabilitation of the spastic arm should start at the shoulder. The most difficult shoulder movement for the patient to regain is external rotation. Flexion and extension of the forearm is difficult for the spastic hemiplegic to perform. When asked to flex the elbow, he elevates the shoulder and abducts and internally rotates the arm. Pronation and supination of the hand are usually impossible, as these are the last movements learned by man and the last to return. Internal and external rotation of the arm are primitive movements and the patient attempts to substitute these movements for pronation and supination. The fingers and thumb are usually flexed tightly. If the fingers and thumb are forced open they can be flexed but active extension movements are usually impossible. On yawning, the fingers of the hand usually extend.

The exercises to maintain the normal motion of the affected extremity have been described.

It is necessary to test if there is a sensory disability which may be more disabling than the motor. The most serious sensory disability is the inability to recognize objects or forms by touch (asterognosis). This can be tested by having the patient close his eyes and then endeavor to recognize objects placed in his hand.

5. Speech.

When the paralysis affects the dominant hand, that is, the one he uses to write, then we may expect the patient to have a language problem (aphasia). As 96 per cent of the population are right-handed, we may expect those with a right hemiplegia to have aphasia.

There is nothing as frustrating as being unable to express one's self. The evaluation of the type of aphasia is essential before therapy is started. There are four types of aphasia: motor, expressive, motor-expressive and global. A special booklet describing the problem for the patient and his family has been prepared and a method of treating the patient by a member of the family.[1]

Conclusions

The rehabilitation of the hemiplegic patient should begin as soon as definitive care is no longer required. This, in most cases, can be started 48 hours after the "stroke." If the patient is waited upon by the nurse and his family over a period of time it is extremely difficult to get him interested in helping himself.

The objectives of the program are to begin ambulation, with the aid of a short leg brace and cane; to teach the patient to perform self-care activities with the unaffected hand; to treat the affected leg and arm in order to prevent deformities, and re-educate the affected muscles and to give speech therapy if aphasia is present.

1. Taylor, Martha L.: Understanding Aphasia, Institute of Physical Medicine and Rehabilitation, 400 East 34th Street, New York, New York.

New York University
Bellevue Medical Center
400 East 34th, New York, New York

MEDICAL  CENTER

Message from the Dean

The Department of Dietetics at the University of Oklahoma Medical Center has a dual responsibility: dietary treatment of the patient and teaching the objectives of dietary therapy to professional personnel. The patient is the department's primary reason for existence. The interpretation of the dietary physiologic and psychologic needs of the patient to insure maximal contribution to his recovery and sustained rehabilitation in the community is a constant challenge to the dietitian.

It is the dietitian's responsibility to adapt the diet for the individual patient from the physician's prescription. In order to accomplish this effectively she must develop an understanding of the patient and his social, religious and economic influences. She must educate the patient and family members when possible. She must gain the patient's cooperation and motivate him to adhere to the prescribed diet while in the hospital and following discharge.

Personal contact between the patient and members of the dietetics staff—the dietitian, dietetic intern, food service supervisors and dietary aides—is necessary for progressive patient education. At the University of Oklahoma Medical Center, a decentralized food service makes this relationship possible. In a decentralized food service, all food is prepared in the central kitchen and transferred by conveyors (heated for hot food) to the ward serving kitchens. There are six ward serving kitchens at the University Hospital and five at Children's Memorial Hospital. The food is selected in the ward kitchens according to the individual patient's diet prescription and served to the patient by the dietary aide.

The Department of Dietetics also operates a milk formula laboratory at Children's Memorial Hospital, a personnel cafeteria and a doctors' dining room at University Hospital. The personnel cafeteria is open 21 hours a day and the doctors' dining room serves the noon meal Monday through Friday. Buffets, coffees and teas are frequently prepared and served to honor special guests and visitors at the Medical Center. Also, food is prepared in the University Hospital Central Kitchen for patients not on metabolic diets at the Oklahoma Medical Research Institute hospital and for children not on formulas in the preschool nursery at University. Throughout all these preparations the dietitian must apply her knowledge of group feeding to provide sufficiently varied menus to appeal to this diverse group.

The Department's teaching responsibilities are to the dietetic interns, medical students, house staff, medical staff, nursing service staff, student nurses, patients (on both an inpatient and outpatient basis), and to employees. Members of the department also participate actively in community health education. The dietitian supervises the diet therapy practice experience for the student nurses and participates in the formal and informal teaching of medical students as well as in in-service education and on-the-job training for non-professional supervisors and employees.

Mark R Everett

Acute systemic allergic reactions may cause minor changes in the electrocardiogram. These may be important in your interpretations.

Electrocardiographic Changes in Acute Allergic Reactions

JERRY R. NIDA, M.D.*

ALLAN J. STANLEY, Ph.D.

Jerry Raymond Nida, M.D., graduated from the University of Oklahoma School of Medicine in 1960. He is now interning at the University Hospital, Oklahoma City.

Allan J. Stanley received his Ph. D. degree from the University of Iowa in 1936. He is professor of Physiology at the University of Oklahoma School of Medicine.

Doctor Stanley is a member of the Society for Experimental Biology and Medicine, the Endocrine Society, Sigma XI, the Oklahoma Academy of Science and an associate member of the American Association for Cancer Research.

ELECTROCARDIOGRAPHIC CHANGES in experimental anaphylactic reactions in rabbits and dogs were recorded in 1951 by Mikulicich. He described extrasystoles, tachycardia, inversion of T waves, inversion of the QRS complex and q-t segment depressions similar to those seen in myocardial infarction. Coca, in his book *The Pulse Test*, used the finding of an increased cardiac rate as a clue to exposure to allergic agents. He had noticed this change first in 1937 while testing his wife for a food allergy. Roth found that nicotine administered both intravenously and by the smoking of tobacco caused an increased cardiac rate and T-wave inversion. Graybiel and White noticed that tobacco smoke caused an increased cardiac rate and depression of the T wave. They suggest that the pharmacological effect of nicotine might be the cause.

We have studied the electrocardiographic changes in the less severe allergic reactions. A series of patients who had previously exhibited food and inhalant sensitivities were challenged by a known allergen and an electrocardiogram was made. It has been recognized generally that smooth muscle in the lungs and digestive tract will react to inhalant and ingested antigens. It seems reasonable that the smooth muscle surrounding the vessels in the myocardium may also react to antigenic substances. Another possibility is neuromuscular hypersensitivity in the conducting system of the heart. This hypersensitivity may involve the SA node,

*Doctor Nida was an Allergy Foundation of America Fellow during the academic year 1959-60 and gratefully acknowledges their financial support for this study.

a manner as to produce electrocardiographic changes.

Technique

A General Electric Cardioscribe and a Burdick Electrocardiograph were used in these experiments. Most subjects had a known allergy established by studies in the Veterans Administration Experimental Unit or in the Oklahoma Allergy Clinic in Oklahoma City, Oklahoma. Pollens were administered by either dispersion into an air tight room and recirculated or by placing a micro amount directly into the nostrils on a vibrating spatula. A control was taken immediately before challenge and a tracing was made as the patient reacted by sneezing, scratching the nose, or rhinorrhea. Foods were given after 12 hours of fasting and a record made when the cardiac rate increased or after one and two hours. Tobacco was tested with both filtered and non-filtered cigarettes.

In most cases the standard limb leads were used. These were sufficient to detect changes in rhythm and rate. Several full tracings were made, but rarely did it contribute more information. All tracings were made with the patient recumbent. The patients were well informed and relaxed to avoid psychophysiological factors. Most tests were made in the months of December, January and February when pollen counts were lowest.

None of these patients have ever had asthma, rheumatic heart disease, coronary insufficiency or histories of myocardial ischemia. Electrocardiograms were analyzed using the standard texts of Burch & Winsor, and Wolff as references.

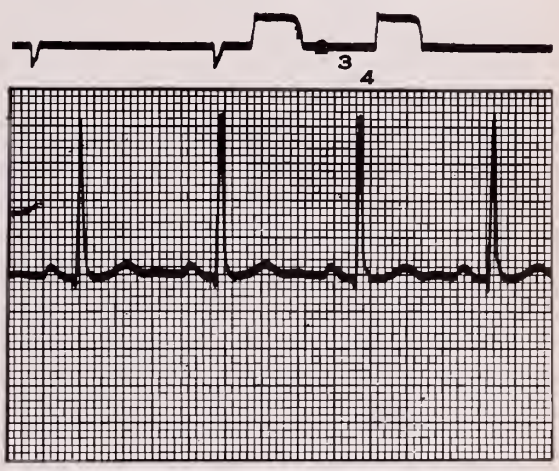
RESULTS

Patient	Allergen	Summary of Results
SM	Triple Ragweed	Increased Cardiac Rate
BM	Triple Ragweed	Increased CR
CS	Triple Ragweed	Increased CR
RG	Triple Ragweed	Increased CR, Minor T-wave changes
AS	Tobacco	Increased CR, T-wave changes
RS	Tobacco smoke	Increased CR, T-wave changes
CF	Tobacco smoke	Increased CR
GW	Banana	Consistent Fast CR 100
JO	Chinese Elm Pollen	Nodal Extrasystoles
ON	Egg Albumen	Minor T-wave changes
OF	Giant Ragweed	Minor T-wave changes
PF	Giant Ragweed	T-wave changes
LK	Giant Ragweed	Minor T-wave changes
KK	Giant Ragweed	Increased CR, T and S-wave changes 80-100
RN	Giant Ragweed	Increased CR 80-100

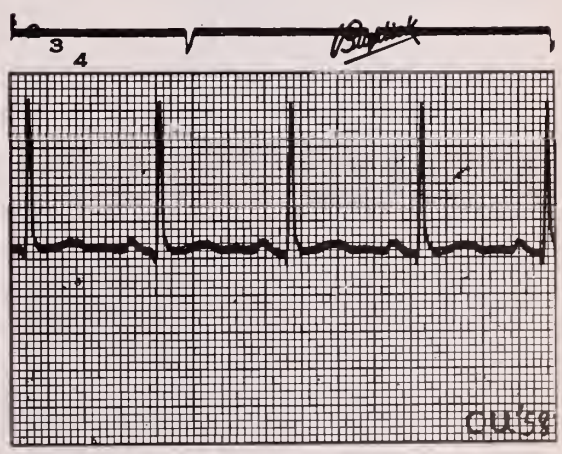
Discussion

Many patients exhibited no symptoms after challenge with the antigen, however, minor changes occurred on the tracings. Many patients had an increase in pulse rate soon after exposure but the constitutional

Ragweed Pollen Sensitivity



Control—Patient R.G.
Cardiac Rate: 80/minute



Test—Patient R.G.
Cardiac Rate: 100/minute

Figure 1.

symptoms were delayed 8 to 10 hours. Control "normal" individuals change very slightly in cardiac rate.

Cases

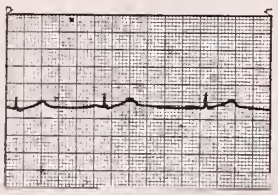
RG is a 25 year old student who had seasonal rhinitis and rhinorrhea. Skin tests show 4 plus reaction to the grasses, especially bermuda, and the ragweeds. Control pulse was 80/minute and after the test with triple ragweed (Giant, short and western), he quickly developed rhinorrhea, pale swollen mucous membranes, conjunctivitis and a pulse of 100/minute. Minor T-wave depression was also present.

RS is a 27 year old student who had chronic "sinusitis." He was tested with tobacco smoke and reacted more than any of the others tested. His cardiac rate was 65/minute initially, but rose to 95/minute after challenge. Some decrease in nasal stuffiness and postnasal drip resulted from "cutting down" on smoking.

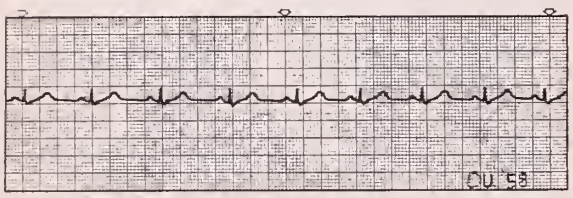
JO is a physician who as a medical student applied for an insurance policy that required a physical examination taken in the spring. He was told of some extrasystoles. When we saw him in December, he had no premature beats. Because of the symptoms only in late February and March, Chinese Elm pollen was tried. Chinese Elm pollenates during those months. In about four minutes (tested in December), he developed extrasystoles at a rate of 5-8/minute. The nostrils were quickly lavaged and antihistamines were taken. That evening he had rhinorrhea, itching of the nose, conjunctivitis which was gone the next morning. After four days, he had three extrasystoles per minute. In three weeks there were no extrasystoles. This was the most "spectacular" reaction to any of our tests. Communication with two other physicians have revealed essential identical reaction to pimientos in one case and egg albumin in the other. These cases are several hundred miles from Oklahoma City and recorded proof is not available.

ON is a 52 year old salesman who developed a reaction to polyvalent flu vaccine cultured on eggs. He had an elevated temperature, erythema and swelling in his left arm. A week after symptoms left, he chanced to eat an egg which resulted in "indigestion" and a generalized skin rash without hives. This happened one other time, but the attack seemed to be less serious. By the time of the test only minor T-wave changes were found. Previous pulse tests a month earlier show an increase from 68 to 76/minute in the cardiac rate after

Tobacco Smoke Sensitivity



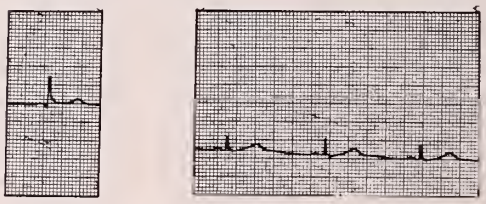
Control—Patient R.S.
Cardiac Rate: 65/minute



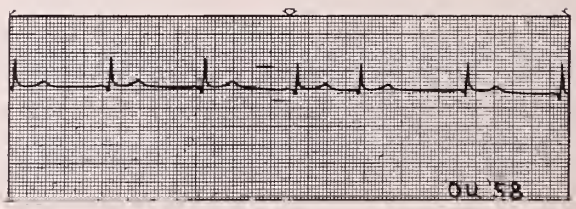
Test—Patient R.S.
Cardiac Rate: 95/minute

Figure 2.

Chinese Elm Pollen Sensitivity



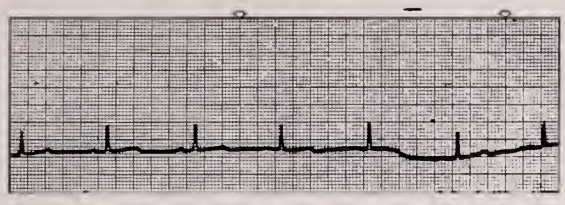
Control—Patient J.O.



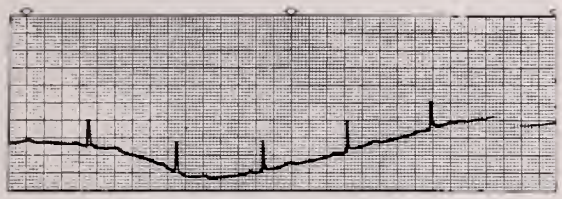
Test—Patient J.O. (note the example of an extrasystole, probably nodal type)

Figure 3.

Hen Egg Sensitivity



Control—Patient O.N.



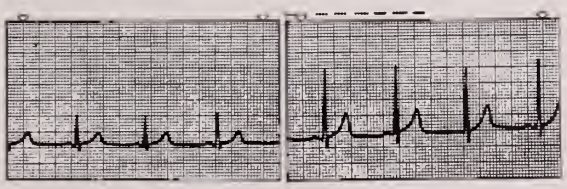
Test—Patient O.N. (Minor T-Wave changes are noted)

Figure 4.

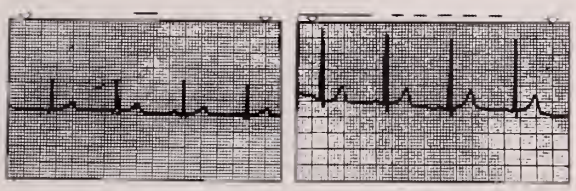
one challenge and from 72 to 80/minute on another occasion. A gradually increasing egg diet has increased his tolerance.

KK is a 22 year old student who has been found sensitive to house dust and ragweed pollen by skin testing. His electrocardiogram shows a slight increase in cardiac rate and also a depression of the T wave. Precordial leads show minor S-wave changes. All of these findings suggest anoxic changes.

Giant Ragweed Pollen Sensitivity



Control—Patient K.K.
Cardiac Rate: 80/minute



Test—Patient K.K.
Cardiac Rate: 100/minute (note T-Wave depression)

Figure 5.

The ragweed sensitive group exhibits the typical increase in cardiac rate, as Coca first reported in 1937. There is electrocardiographic proof that the rate increases and that there are only other minor changes. The T-wave depression suggests very slight myocardial anoxia in the repolarization phase. The problem is still unsolved as to the exact site of the reaction. One can suspect the smooth muscle around the pulmonary bronchi as well as in the coronary artery. Both may give this picture.

There is some doubt in those tested with tobacco smoke, if the result was due to a true antigen-antibody reaction or to the nicotine. Graybiel, White and Roth have recognized tachycardia and T-wave depression as the nicotine effect. In our small series T-wave depression was lacking and in the case previously mentioned, it was actually elevated 1 to 2 mm. These cases deliberately chosen because of allergic histories, may represent tobacco allergy instead of the pharmacologic nicotine response.

One patient tested was allergic to bananas. Her normal daily pulse was about 76/minute. On the day she was tested to banana there was a constant rate 100/minute. After the electrocardiogram was analyzed, a letter was sent to find out if she had eaten anything before the test. She admitted eating a biscuit that morning. Examination of her old skin test record shows a moderate reaction to wheat. Two hours after the ingestion of the banana she developed a migrain headache, and 16 hours later she had diarrhea.

Conclusions and Summary

Minor cardiac irregularities exist in allergic individuals following a challenge by the antigenic agent. Increased cardiac rate, extrasystoles and T-wave changes have been shown. We have not found a specific change that can be related to the acute allergic reaction except an increase in the cardiac rate that can also be detected simply by feeling the pulse. The underlying physiologic basis is still unknown. Experiments to determine if these changes are primary to the respira-

tory or the cardiovascular system are planned.

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ABSTRACTS

The Influence of Clorpactin WCS-90 on the Bacterial Complications of Surgery

M. K. DuVAL* and F. H. HOWARD.**

Surgery 47: 210-216, Feb. 1960.

A study of the effects of Clorpactin WCS-90, a nontoxic, nonallergic, water-soluble monoxychlorosene, in preparing the skin and irrigating the wound at the time of operation, was made over a period of one year and included 1,000 patients. The series comprised 533 males and 467 females of all ages, from newborn infants to octogenarians. The experimental group was composed of 489 patients, in whom the skin at the site of operation was scrubbed for 5 minutes with a 4% Clorpactin WCS-90 solution in distilled water; as the operation proceeded, the wound was irrigated for a full minute with 300 cc. of the Clorpactin solution once every hour and again at the time of wound closure. In some cases irrigation of the peritoneal or the pleural cavity was done. Nondrained operative wounds were covered with sterile dressings for 47 to 72 hours, and then left exposed. The control group was composed of 511 patients, who underwent the same procedure, with use of a surgical soap containing hexachlorophene for scrubbing the skin and sterile sodium hydrochloride solution for irrigating the wound.

There were 262 "clean" and 249 "contaminated" patients in the hexachlorophene-treated group, 275 "clean" and 214 "contaminated" patients in the Clorpactin-treated group. The incidence of wound infection was 4.6% in the clean and 9.8% in the contaminated patients of the control group, while in the experimental group these percentages were, respectively, 1.8 and 7.5%. Although the difference is not statistically significant, there is evidence of a protective effect of Clorpactin. Further observations showed that, when the contact time with Clorpactin during the irrigation of the wound is increased from 1 to 3 minutes, the rate of protection also increases. One significant difference was that in the Clorpactin series 75% of the infections occurred either in cases of peripheral vascular surgery, in which the blood supply was insufficient, or in cholecystectomies. This limitation of infection was not noted in the control group. The failure of preventing infection in peripheral vascular operations justifies the inference that no agent can be a substitute for good surgical technique and gentleness in handling tissue, especially in situations of compromised blood supply.

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**Resident in Surgery.

Maintenance of Pulmonary Arterial Medial Hypertrophy in Newborn Pups

GILBERT S. CAMPBELL,* WILLIAM E. JAQUES,** and DAVID D. SNYDER.***

Surgical Forum, **Vol. X**, 1960

A post-ductal coarctation was produced in newborn pups and the physiologic and anatomical pulmonary changes were compared with non-coarctated controls.

Non-coarctated pups showed a regression in right ventricular pressure and pulmonary arteriolar medial mass whereas coarctated pups had persistent right ventricular hypertension and persistent fetal medial hypertrophy in the pulmonary arterioles.

*Professor of Surgery.
**Professor of Pathology.
***Resident in Surgery.

The Physiologic Effects of Dexamethasone

KELLY M. WEST,* PHILIP C. JOHNSON,** ADRIAN A. KYRIAKOPOULOS,*** W. JULIAN BAHR**** and CARMEN E. BLOEDOW.*****

Arthritis and Rheumatism, 3: 129-139, April 1960

The hyperglycemic and eosinopenic potencies of dexamethasone were determined in man and were found to be essentially identical to the anti-inflammatory potency of this drug (approximately 25 to 30 times that of hydrocortisone).

Under the conditions of our experiments we were unable to establish precisely the potency of dexamethasone in suppressing corticotropin. However, the data suggest that in man the potency of dexamethasone in this respect is roughly equivalent to its potency in producing hyperglycemia, eosinopenia and suppression of inflammation.

Under the conditions of our studies (2 days of therapy), antidiuresis of water, sodium and chloride excretion occurred after the administration of hydrocortisone, while prednisolone produced an equivocal diuresis of water, sodium and chloride. Dexamethasome produced an antidiuresis of sodium, chloride and water of equivocal significance. Hydrocortisone, prednisolone and dexamethasone all produced a diuresis of potassium when the drugs were administered in doses of comparable anti-inflammatory potency. The potassium diuresis produced was less during therapy with prednisolone than during therapy with the 2 other drugs.

None of these 3 drugs affected the urinary excretion of magnesium.

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**Associate Professor of Medicine.
***Research Fellow in Medicine.
****Resident in Medicine, University Hospital.
*****Chief Resident in Medicine, V. A. Hospital.

Vascular Lesion of Hereditary Hemorrhagic Telangiectasia

ROBERT M. BIRD* and WILLIAM E. JAQUES**

N. Eng. J. Med. 260: 597-9, March 1959

A clinical and pathological study on an elderly man with hereditary hemorrhagic telangiectasia is presented. The findings emphasize the fact that the telangiectasia involved large and small veins primarily. Arterial involvement was inconspicuous. All major organ systems were involved, and in each the venous defect was diffusely distributed. Clinical bleeding seemed to depend more on chance or accessibility of a tissue to trauma than on any predilection of the disease for a particular organ system. It is suggested that the cardiovascular disease resulted from the presence of increased numbers of arteriovenous communications.

*Associate Professor of Medicine and Physiology.
**Professor of Pathology.

Pulmonary Hypertension and Plasma Thromboplastin-Antecedent Deficiency in Dogs

WILLIAM E. JAQUES,* JAMES W. HAMPTON,** ROBERT M. BIRD,*** KARL A. BOLTEN**** and B. RANDOLPH.*****

A.M.A. Archives of Pathology, 69: 248-256, 1960

Dogs infused with autologous, homologous, and human amniotic fluid rapidly developed pulmonary hypertension without regard for the sex of the animal or the source of the fluid. The pressures in the lesser circulation increased progressively with repeated infusions.

Fibrin thrombi in varying stages of organization were demonstrated in the pulmonary vascular bed.

The animals given infusions of amniotic fluid consistently showed a prompt fall in fibrinogen and developed a defect in thromboplastin generation. This deficiency in thromboplastin generation was shown to be functionally similar to plasma thromboplastin-antecedent (PTA) deficiency in man.

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**Public Health Service Trainee and Clinical Assistant in Medicine.
***Asociate Professor of Medicine and Physiology.
****Research Associate in Pathology.
*****Technician in Medicine.

Symposium on Hereditary Metabolic Diseases Galactosemia

HENRY N. KIRKMAN.*

Metabolism 9: 316-325, April 1960

Galactosemia is an autosomal, recessive disease in which the affected individual lacks active ∂-D-galactose-1-phosphate (Gal-1-P) uridyl transferase, one of the enzymes necessary for galactose utilization of galactose. This lack leads to an accumulation of galactose-1-phosphate, which in turn causes cellular injury. The signs of the fully manifested disease are jaundice, hepatomegaly, cirrhosis, cataracts, galacturia, aminoaciduria and failure to grow. Death sometimes results. In the severe form of this disease, symptoms occur soon after birth; but milder forms may escape detection until late infancy or childhood. These complications, and possibly the mental deficiency that often present later, can be prevented by the early dietary exclusion of galactose, which is found predominantly in milk. In heterogygous individuals Gal-1-P uridyl tranferase activity is moderately reduced, but they usually show none of the signs of the disease. The various technics of measuring the abnormal galactose metabolism are summarized.

*Assistant Professor of Pediatrics.

Two Associate Deans Named

Two new associate deans have taken office at the University of Oklahoma School of Medicine, filling vacancies left by Kirk T. Mosley, M.D., D.P.H., new Oklahoma state commissioner of health, and A. N. Taylor, Ph.D., who quit August 1 to become an assistant secretary with AMA's Council on Medical Education and Hospitals in Chicago.



WHITE

Joseph M. White Jr., M.D., head of the Department of Anesthesiology since 1956, was named associate dean in charge of special training and research programs, the title formerly held by Doctor Mosley.

Doctor Taylor's successor is associate dean in charge of student affairs is Philip E. Smith, D.Sc., professor of preventive medicine and public health and director of the Medical Center division of the OU Graduate College.



SMITH

Doctor White is a graduate of Southwestern Medical School, Dallas, Texas. He interned at Denver General Hospital, took residency training at the University of Iowa Hospitals and received a Master of Science degree in pharmacology at the University of Iowa School of Medicine.

He was in private practice in San Francisco, served with the army in Korea and Japan from 1952 to 1954, and was assistant professor of anesthesiology at the University of Washington School of Medicine, Seattle, before coming here. He will continue to handle departmental duties.

Doctor Smith, a faculty member since 1952, holds a Master of Science degree from the University of Illinois and a Doctor of Science from the Johns Hopkins University School of Hygiene and Public Health. The new associate dean taught in the zoology department at Oklahoma State University prior to joining the OU medical faculty.

He is president of Oklahoma Academy of Science and has held other state offices in that organization since 1955. He has the rank of Major, Medical Service Corps, U.S. Army Reserve.

Doctor Taylor left the Medical Center after 14 years service, coming here from the physiology department of the University of Texas Medical Branch, Galveston. He was chairman of the OU Department of Physiology and had been associate dean of students eight years. M. Jack Keyl, Ph.D., assistant professor, is currently heading the physiology department as vice chairman.

At the AMA Council office, Doctor Taylor will be responsible for establishing a new division to develop liaison between medicine and the allied health professions.

The School of Medicine now has three associate deanships. The third is occupied by S. N. Stone, M.D., in charge of clinical instruction.

Newest of the administrative positions is the one taken by Doctor White. Doctor Mosley was named first dean in charge of special research and training programs when the post was created in January, 1958 to keep pace with growth of the institutions.

Doctor Mosley, on the faculty since 1952, assumed duties as health commissioner July 1. He continues to hold the appointment of professor of preventive medicine and public health.

Eight Faculty Appointments Approved by Regents

Eight appointments to the School of Medicine faculty have been approved at recent meetings of University of Oklahoma Regents.

Anton Lindner, M.D., new chief of clinical laboratories at the Oklahoma City VA Hospital, was named associate professor of pathology, and Robert E. Coalson, Ph.D., who completed his graduate training in medical sciences at the OU Medical Center in 1955, has returned as assistant professor of anatomy.

Others include three instructors in pediatrics, two clinical assistants in medicine and an assistant professor of audiology in the Speech and Hearing division.

Doctor Lindner came here from the VA Hospital at Buffalo, where he also was an assistant professor of pathology at the University of Buffalo. His previous academic appointments were at the University of Wisconsin, the University of Innsbruck, Austria, where he received his M.D. degree in 1941, and the University of Chicago.

The pathologist interned at St. Louis University, took his residency work at the University of Graz and Vienna City Hospital in Austria, Cook County Hospital in Chicago and McGill University in Montreal.

Doctor Coalson, the new anatomy teacher, has served as biochemistry assistant, Brooke Army Medical Center, Fort Sam Houston, Texas, and as instructor in anatomy at Vanderbilt and special instructor in anatomy at Meharry Medical College, Nashville.

New pediatrics instructors are Jimmy L. Simon, M.D., former chief of pediatrics at Tinker Air Force Base, Robert Emmett Myers, M.D., and Jacob L. Kay, M.D., who recently completed a fellowship on the newborn service at Baylor University College of Medicine.

Doctor Simon is a graduate of University of California School of Medicine. He served a pediatric internship at the University of California Hospital and took residency training at Grace New Haven Hospital and Boston Children's Hospitals.

Doctor Myers, a 1955 graduate of the University of Arkansas School of Medicine, interned at Cleveland City Hospitals and completed his residency at University Hospitals of Cleveland.

Doctor Kay holds an M.D. from Baylor University College of Medicine and interned at Houston's Jefferson Davis Hospital. He also did his residency training at Baylor, took advanced work in care of the newborn and premature as a fellow at Boston Lying-in Hospital returning then to Baylor.

Named clinical assistants in medicine were James W. Hampton, M.D., and Gerald Honick, M.D., both OU medical graduates who have been taking advanced training at the Medical Center.

Doctor Hampton interned at University Hospitals, remained at the Center for a residency in medicine and has been a hematology fellow the past year. Doctor Honick also interned and was a resident in medicine at the Medical Center. A research fellow in cardiology the past year, he will have part-time teaching duties.

The new speech and hearing staff member is Howard Bernard Ruhm, Ph.D., who will direct audiological research in that division. He was graduated from George Washington University, received his master's degree from the University of Maryland and his Ph.D. at Northwestern University. He spent four years as an audiologist with the Veterans Administration.

Speech and Hearing Clinic To Have New Wing

Ground was broken this summer for a two-story, $172,936 addition to the University of Oklahoma Speech and Hearing Clinic at the OU Medical Center.

The wing will provide additional facilities for teaching the deaf and hard-of-hearing, for speech therapy and graduate instruction and research in audiology and speech therapy. Construction funds were provided by a Hill-Burton federal health facilities grant matched by an appropriation from the last legislature.

University Regents at their June meeting transferred administration of the Clinic from the College of Arts and Sciences on the Norman campus to the Medical Center, making it a "division" and integral part of the Center. The present clinic building was opened in 1957.

Special Article

Hailed as the nation's finest, OU's adult education center begins new era in regional adult education.

Oklahoma Center For Continuing Education

UNIQUE IN DESIGN, comprehensive in programming; developed to serve the dynamic patterns of adult concerns in Oklahoma and the Southwest.

This, very simply, describes the new Oklahoma Center for Continuing Education, which promises to open a new era in regional adult education.

Now under construction on the southwest corner of the University of Oklahoma campus in Norman, the Oklahoma Center will lose no time in establishing a bid as the focal point for regional Continuing Education.

To the Center will be drawn human resources of Oklahoma and the region, there to enjoy the benefits of the complete educational resources of the University.



Pictured right is the Forum, hub of the Center, which is now nearing completion.

Here more than 60,000 adults from Oklahoma and surrounding states will gather each year to participate in specific areas of study, designed to help each individual Learn a Better Living—economically and culturally.

Kellogg Project

Partially financed by a $1,845,000 grant from the W. K. Kellogg Foundation, Battle Creek, Michigan, the $4 million plant will offer the nation's finest facility for Continuing Education.

Dr. George L. Cross, University president, Dr. Thur-



At left is seen one of the ten duplex family cottages, each housing eight persons.



Housing Unit 1, pictured above, will provide air-conditioned housing for 152 adult education students. Each floor has a lounge for formal or informal get togethers. Single or twin bedrooms are available.

man White, dean of the University Extension Division, faculty members and extension personnel are presently engaged in shaping the calendar of programs for which the physical plant was built.

Expanded Program

Starting with one of the nation's foremost extension programs, which presently attracts 35,000 men, women and teenagers to the University campus each year for some 240 events, extension directors and specialists are concentrating their efforts on expanding old programs and developing new ones to fit growing regional needs.

The needs of Oklahoma adults, Dean White emphasizes, have always guided and will continue to determine the type of services offered by the University Extension Division.

When the Oklahoma Center for Continuing Education opens its doors for business — estimates range from 12 to 20 months hence — adult patrons will find a "customer's market."

There'll be something for everyone who desires to participate in higher adult education at this modern educational facility; everything that can be provided by total resources of a great state university, supported by knowledge and skills of state and national leaders in all fields of knowledge.

Business, industry, the professions, education, government and just plain John Q. Citizen will find the new facility and the people who operate it ready to serve all appropriate requests.

University faculty members and extension specialists are on call as consultants, ready to help plan, develop and conduct programs to fit individual and group needs.

One of five Kellogg-supported Centers for Continuing Education, the Oklahoma Center differs structurally from the other four, and its approach to Continuing Education for the region's adult population offers a unique pattern.

Where Centers at Michigan State, the University of Georgia, Chicago University and the University of Nebraska are housed in a single building, the Oklahoma Center will be made up of a complex of five major buildings and 10 duplex family cottages.

Facility Described

Located on a 20-acre tract west of Cross Center and bordering Sooner City to the south, the complex is designed for:

The intellectual headquarters of the University's adult student body:

An aesthetic and cultural setting, free from ordinary distractions, to provide privacy for individual thought and study within an optimum environment for group learning;

A setting to further democratic values in group and inter-group relations;

Provision of a variety of adult learning methods and materials.

The Forum, hub of the Center, will provide 21 conference rooms, ranging in capacity from 25 to 526, with an overall capacity of 1,776.

Air-conditioned for summer programs and forced air heated for winter months, meeting rooms will provide maximum comfort, with individual desks and swivel chairs.

Arrangement of these hexagonal meeting rooms also assures the necessary degree of isolation for development of group processes and concentrated study within the group.

Two large discussion type meeting rooms, one seating 200 the other 526, offer large group space needed for lecture demonstrations and exhibits, while retaining the acoustical balance of smaller meeting rooms.

The larger room, the Assembly Room, is built around a 26-foot circular, hydraulic stage, that may be lowered to the basement for loading. Any of the 526 students may speak in a normal tone and be clearly heard by the lecturer on stage or a fellow student across the room.

Convenient to the adult student also will be the Center library, located in open stacks in the Forum. Students will have a choice of several thousand volumes, a good many of which will deal with highly specialized subject matter.

The Center is fully supported by the University's 750,000-volume Bizzell Memorial library, and will have available to its adult students the assistance of research scholars on campus.

Excellent Housing

Center housing for the adult student offers a variety of choices.

Housing Unit I, a three-story dormitory, will offer air-conditioned comfort for 152 students.

Twenty-four twin bedrooms on each floor will house 144 persons and eight single rooms on the second and third floors bring the total to 152.

Each floor is equipped with a comfortable lounge for informal conversations and small discussion groups.

Housing Unit II (Hall of Advanced Studies) is a six-story structure designed for closely identified groups and limited to 40 persons.

Each floor above the ground level, two through five, will be composed of two living areas, with four bedrooms adjoining each small sitting room.

A meeting room on the ground floor, with seating arranged to cover half the room, will provide conference space for 40 persons.

Intensive study groups in the Hall of Advanced Studies may take advantage of meal service in a ground floor combination lounge-dining room, suitable for small banquets and private luncheons.

Guests will also have use of a small kitchen, for snacks or to give the amateur chef full latitude in displaying his culinary abilities.

For the student who wishes to combine a period of study with a trip for the family, the Center will offer 10 comfortable, air-conditioned duplex family cottages, each housing eight people.

Each of the 20 units will provide a living room, dining room, kitchen, two bedrooms and bath, a total of 875 square feet of floor space per unit.

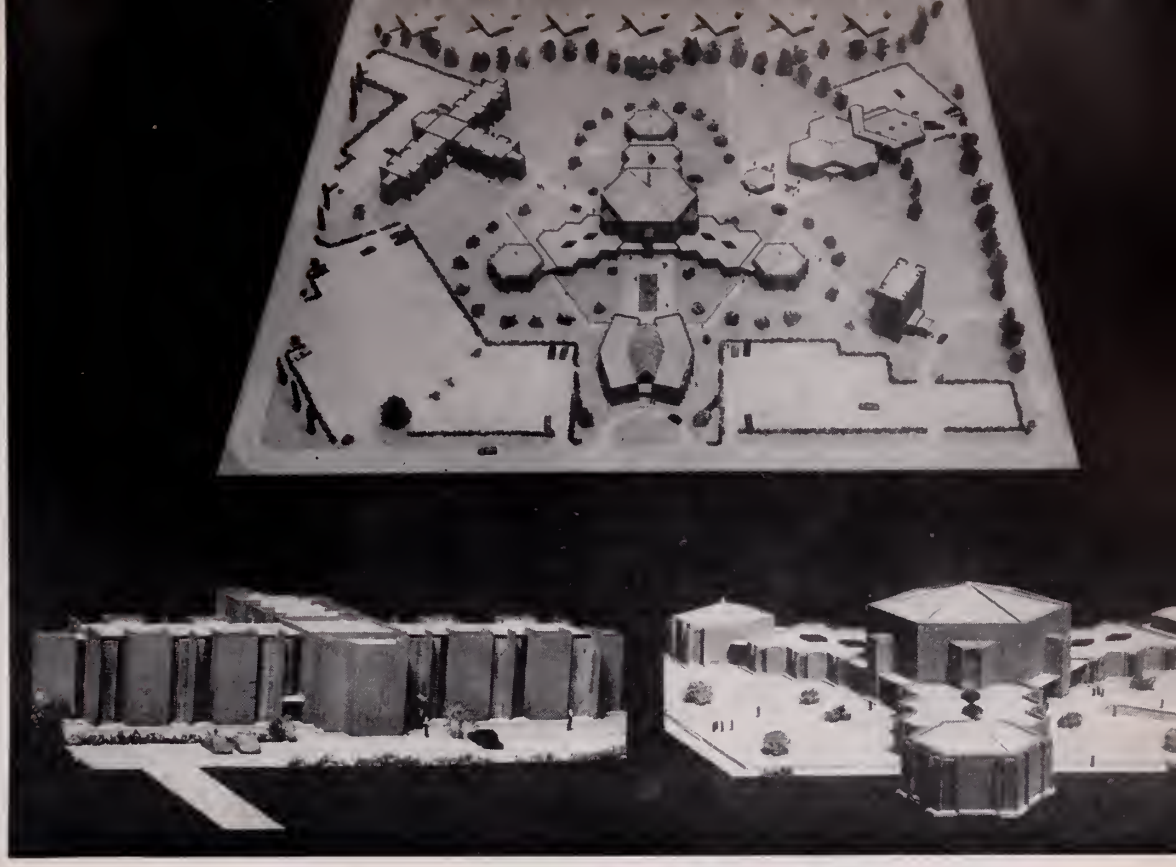
Kitchen equipment includes an apartment range, refrigerator, cabinets, and double sink. The dining area seats six.

Living rooms will be furnished with a sofa bed (raising the sleeping capacity of each unit to six), easy chairs, occasional chairs, coffee table, floor lamps and television.

With its superb housing facilities the Center will offer its students and visitors a cuisine of equal excellence in its new cafeteria.

Cafeteria patrons will have a choice of three dining rooms, each seating 200. Four private dining rooms, each seating 20, will be available for small groups.

The three large dining rooms may be converted into a banquet room, seating 600 guests.



The plot plan of the entire center is shown above. Duplex housing units are on the rear property line and the Forum (center) is surrounded by Housing Unit I (upper left), Cafeteria (upper right), Housing Unit II (lower right) and the Administration Building (foreground, between parking lots). Housing Unit I and the Forum appear at the bottom of the illustration.

Housing and meal costs, not determined at present, will be held to a minimum, with food prices in keeping with those of other University facilities.

The fifth major structure, the Center administration building, will house extension personnel and student records.

A source of funds for the $500,000 building has not yet been found, but is hoped that money for the building will be provided through private resources.

Welcome news to the adult student is word that ample parking facilities will be available on and around the Center. Plans call for parking areas adjacent to both housing units and family cottages and within easy walking distance of the Forum and cafeteria.

Recreation for Students

Also proposed for the Center landscaping program are such recreational features as a putting green and horseshoe, volleyball, badminton and croquet courts.

University tennis courts, swimming pools and the golf course will also be open to Center students.

With this unique facility soon to be ready for Oklahomans and their Southwestern neighbors, University leaders see the day when the Center will become the intellectual home of thousands of adults from the Southwest; men and women who take advantage of Center offerings as a means of enriching their lives as the years bring new interests.

For this overall pattern of human advancement, the Center will house a comprehensive program of short courses, conferences, workshops, seminars, institutes, classwork, study discussion groups and home studies in the following areas:

Common learnings, or programs of general education; professional programs, or college level vocational education; civic and social learnings; health; home and family life education, and cultural and interpretive studies.

Community of Learning

Setting the Oklahoma Center apart from

other university Centers for Continuing Education are two programs unique in the field of adult education:

1. Emphasis on the value of adult students working and living in a "Community in Miniature;"

2. Establishment of an adult student body, based on the individual's lifelong participation in Continuing Education programs at the Center.

First in the nation to recognize and adopt the "Community in Miniature" method of bringing about a closer relationship between adults, the Center program proposes to bring the various groups into contact through plannned leisure-time activities, and through programs of common learnings and liberal education.

While the design of Center housing insures necessary group isolation for concentrated study, opportunities are also provided for inter-group relations at appropriate times.

The Center, a "Community in Miniature," will extract certain essential features from the larger community—from which the students come—and reproduce them within the complex.

Government activities, housing, services, recreation and other large community processes will be integrated into life of the miniature community within the Center.

Representatives of each conference group will have a place on the Center's Community Council, to plan evening programs of Center-wide interest and assist in maintaining liaison between students and professional members of the Center staff.

Through this medium, then, the professional man and the man who works with his hands, the employer and the employe, the adult and the youngster may engage in a free flow of ideas, and all may benefit.

To encourage lifelong planning of Continuing Education, the Center will provide a central records system and a testing-counseling service.

Existing records of adult participation in Extension Division programs now embrace a student body of 50,000, many of whom return each year for studies of varying interests.

Courses designed for specific interest groups may be readily filled by students whose records indicate an interest in those particular fields, and extension specialists may find study records helpful in their search for ideas leading to development of new programs.

For the student who is interested in developing a course of study for economic or cultural reasons, a series of tests offer a useful measure of abilities and interests.

Counseling may then be called on to formulate a long-range study program, and the University's finest faculty members will be on hand to guide the student through his chosen curriculum.

Through these services, University leaders believe it is possible to present a practical program of providing "The Whole Truth for the Whole Man Through the Whole Life."

Experimental programs designed specifically for Oklahoma and the Southwest are expected to add materially to the region's economic and cultural growth.

To Offer Medical Education

Of particular interest to the Medical Profession is the proposed closed-circuit television experiment, emaniting from the Medical Center in Oklahoma City.

Plans call for telecasts from the Medical Center to an audience of physicians who might be meeting at the Oklahoma Center, or to individuals in their offices or homes.

Surgery employing the latest techniques, for instance, might be witnessed by surgeons meeting in Norman, with two-way communications making it possible for a member of the audience to ask a question and receive an answer from the operating room.

Para-medical groups, such as physical therapists, laboratory technicians, medical social workers, pharmacists, school health educators, X-ray technicians and others, may also benefit from lectures and demonstrations beamed directly from the Medical Center.

Other programs of equal interest to other professions and groups are being developed, and suggested programs from any organizations are welcomed by extension personnel.

Whatever the idea, if it serves the people of Oklahoma, the University of Oklahoma Extension Division is ready to help in its development and application.

In Acute Illness...

NILEVAR®

Can Speed Recovery

"Commonly, negative nitrogen balance[1] occurs during acute febrile illnesses and following traumatic events and surgical procedures." As much as 300 to 400 Gm. of nitrogen[2] may be destroyed daily in severe infections. Convalescence[1] is delayed when negative nitrogen balance is large and persistent.

NILEVAR Builds Protein, Speeds Convalescence to Complete Recovery[3-6] ". . . we were impressed[3] with the efficacy of Nilevar as an anabolic agent. All of the patients reported feeling much more vigorous and experiencing an increase in appetite. . . ."

The actions of Nilevar[4] in reversing a negative nitrogen balance—and therefore a negative protein balance—improving the appetite and increasing the sense of well-being can be expected to shorten the illness and the convalescence of these patients.

An initial daily dosage of 30 mg. of Nilevar (brand of norethandrolone) is suggested. After one to two weeks, this dosage may be reduced to 10 or 20 mg. daily in accordance with the response of the patient. Continuous courses of therapy should not exceed three months, but may be repeated after rest periods of one month. Nilevar is supplied as tablets of 10 mg., drops of 0.25 mg. per drop and ampuls of 25 mg. in 1 cc. of sesame oil with benzyl alcohol.



1. Eisen, H. N., and Tabachnick, M.: Protein Metabolism, M. Clin. North America 39:863 (May) 1955. 2. Jamison, R. M.: General Nutritive Deficiency, Virginia M. Month. 83:67 (Feb.) 1956. 3. Goldfarb, A. F.; Nopp, E. E.; Stone, M. L.; Zuckerman, M. B., and Siman, J.: The Anabolic Effects of Norethandralone, a 19-Nortestosterone Derivative, Obst. & Gynec. 11:454 (April) 1958. 4. Batson, R.: Investigator's Report, Feb. 11, 1956. 5. Westan, R. E.; Isaacs, M. C.; Rosenblum, R.; Gibbons, D. M., and Grossman, J.: Metabolic Effects of an Anabolic Steroid, 17-Alpha-Ethyl-17-Hydroxy-Norandrostenone, in Human Subjects, J. Clin. Invest. 35:744 (June) 1956. 6. Brown, C. H.: The Treatment of Acute and Chronic Ulcerative Colitis, Am. Pract. & Digest Treat. 9:405 (March) 1958.

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Research in the Service of Medicine

PRESIDENT'S LETTER



The dull gray skies over Washington were smudged with low hanging clouds as we walked from the parking lot toward the Senate chamber. "You know," said the Senator, "in eastern Oklahoma they would call those clouds 'threatening', but out in New Mexico they call the same clouds 'promising'." Dick Graham and I smiled as once again we acknowledged the wry humor of Senator Robert S. Kerr of Oklahoma.

In a few minutes we were to see him in a different setting and in a different mood in the Senate, as he clashed with Senator Anderson from New Mexico over provisions of the so-called Anderson Amendment to the Mills bill. Congressman Mills' bill in the Senate had evolved into the Kerr bill, and Senator Anderson and his followers wanted to amend it only enough to include a raise in the Social Security tax from both employe and employer of ¼%, a total of ½%, and with this to offer all-inclusive hospitalization and hospital outpatient facilities to all Social Security beneficiaries.

We were privileged to watch and listen from the Senate gallery during the two days and evenings of August 22 and 23 as the plan unfolded in this latest attempt to add medical care to Social Security. Most of the proceedings were dull, but with the tenacious Kerr battling facts with facts and figures with counter figures on the true medical needs of our nation. Debate was so prolonged that a mutual agreement had to be negotiated as to a specific time for a vote Tuesday on the foredoomed Javits amendment, which would have authorized government financing of health insurance, and a vote within four hours after this on the Anderson Amendment. Senator Javits' amendment failed, with only 28 "yea" votes.

We now have 100 duly elected members of the United States Senate, what with the recently admitted states of Alaska and Hawaii. In the final, tense roll call at 6:20 Tuesday evening exactly 51 senators voted against the Anderson amendment.

The Kerr bill has since been submitted to joint conference of the House and Senate, cleared the Rules Committee, and been referred on to the President for signature into the law of the land.

Gentlemen, make no mistake about it, the clouds this year were "threatening."

Walter E. Brown, M.D.

Walter E. Brown, M.D.
President

News

Welfare Department Cuts Medical Fees 10%

Delegates to the Oklahoma State Medical Association assembled at the state headquarters building on July 31st, at which time they learned of a financial crisis in the operation of the Department of Public Welfare's medical care program and were told that a ten per cent cutback in medical care payments would be invoked in August. The ten per cent economy measure would also be applied against other health care vendors, such as hospitals, ambulance services and blood banks.

The announcement was met with mixed emotions, and critics of the program since its inception had opportunity to give vent to their long-standing, philosophical grievances. To such physicians, the cutback was a reflection of the financial plight brought on by predicted expansion of the program beyond its original objectives. To many others, the shaving of fees represented a necessary economy measure, the burden of which should be shared by all persons and institutions rendering care under the program. Regardless of the philosophical outlook, the Welfare Department was faced with an immediate problem of tightening its purse strings until such time as financial balance could be restored.

Less Money: Same Costs

In brief, the Welfare Department reported that expenses were exceeding income. It seems that the maturation of the Social Security program is affecting the transfer of many pensioners from the welfare rolls, thus rendering the Welfare Department ineligible to receive Federal matching funds for these persons and lessening the funds available for the medical care program. While it would be reasonable to expect the expense of purchasing health care for the recipients to decrease proportionately to the decreasing numbers of recipients, such was apparently not the case.

The Delegates' Discussion

The problem was presented to the Delegates by Mark R. Johnson, M.D., Chairman of the OSMA Council on Socio-Economic Activities and member of the Professional Advisory Committee to the Department of Public Welfare. He was assisted in his presentation by President Walter E. Brown, M.D., and others especially familiar with the complexities of the medical care program.

Doctor Johnson pointed out that the OSMA could either arrive at an alternate economy measure or accept the ten per cent reduction in keeping with a pre-existing policy (1959) which provided that such a financial crisis could be met by an across-the-board reduction in vendor payments of all types.

Doctor Johnson moved: *"That the Oklahoma State Medical Association approves the across-the-board reduction in vendor payments in the medical care program by the Department of Public Welfare."* The motion received a second.

Then, E. K. Norfleet, M.D., Bristow, proposed the following substitute motion, which received a second, but was later tabled:

"I move the Oklahoma State Medical Association go on record that it will continue to care for these people regardless of who pays or does not pay, but it is opposed to accepting the reduction in the program."

As a counter proposal, Doctor Johnson suggested a resolution (so moved by Francis



Walter E. Brown, M.D., OSMA President from Tulsa, takes the floor before the delegates' assembly. He is shown as he clarified key points in the complex financial structure of the D.P.W. Medical Care Program for Public Assistance Recipients.



Wendell L. Smith, M.D., Tulsa Delegate, Dick Graham, OSMA Executive Secretary, and Jack Spears, Executive Secretary of Tulsa County (left to right) have lively discussion during a break in the meeting. In the background, President Brown.



J. R. Stacy, M.D., (left) Chairman of the Council on Public Policy, is shown conferring with Mark R. Johnson, M.D., OSMA Secretary-Treasurer and Chairman of the Council on Socio-Economic Activities.

Following the meeting, President Brown was interviewed by Oklahoma City's KWTV. The welfare medical care program has always attracted much public interest, and the news services were quick to sound out medicine's views on the current financial situation.





Marshall O. Hart, M.D., presides as Speaker of the House of Delegates, with the able assistance of pinch-hit-secretary Isabell Graham (Mrs. R. H.).

R. First, M.D., Checotah) which criticized previous expansion of the program and called for the cessation of claims for medical care, until such time as the entire plan was re-evaluated and submitted to the physicians for approval. This resolution was put to a vote and lost.

Following a ten minute recess, Speaker of the House Marshall O. Hart, M.D., reconvened the meeting only to discover that a quorum had been lost during the interlude. The meeting was officially adjourned, but recalled by the President in order to test unofficially the sentiment of the Delegates present regarding the principle issue at hand, as well as other matters on the agenda.

After continued discussion of the welfare issue, H. E. Denyer, M.D., Bartlesville, made the following motion which was subsequently approved:

"The Oklahoma State Medical Association regrets that the administration of the Department of Public Welfare finds itself in financial difficulty and states that it will continue to care for the State's poor, and it is sure that administrative changes will be effected to adequately assist physicians and hospitals in carrying the cost of care of the aged sick.

"Further, that a study committee be furnished the Department of Public Welfare in order to develop ways and means for this to be accomplished."

Oklahomans Attend Regional Political Action Conference

French Lick, Indiana was the site of one of three regional meetings sponsored by the AMA's Council on Legislative Activities to review the actions of the 86th Congress with respect to health proposals and to present practical guides and instructions for political organization and action at the local and state levels.

The two-day Political Action Conference was held August 12th and 13th, drawing an attendance of over three hundred persons, representing eighteen states.

John E. McDonald, M.D., member of OSMA's Council on Public Policy, moderated a panel which discussed State Political Action.

Representing Oklahoma, in addition to Doctor McDonald, were Clinton Gallaher, M.D., President-Elect of the Oklahoma State Medical Association; J. R. Stacy, M.D., Chairman of OSMA's Federal Legislative Committee; and Dick Graham, Executive Secretary of Oklahoma State Medical Association.

Committee Chairmen for Annual Meeting Named

Ceylon S. Lewis, Jr., M.D., Tulsa internist, who was named last month by Walter E. Brown, M.D., President of the OSMA, as General Chairman of the 55th Annual Meeting of the Oklahoma State Medical Association, has appointed five Tulsa physicians to serve as sub-committee chairmen.

Those who will serve with Doctor Lewis and Donald L. Brawner, M.D., Tulsa, Chairman of the Scientific Works Committee, will be: E. Malcolm Stokes, M.D., Social Affairs; James W. Kelley, M.D., Golf Tournament; H. Kenneth Ihrig, M.D., Publicity and Press Relations; Robert Jabour, M.D., Commercial Exhibits; and Byron L. Bailey, M. D., Scientific Exhibits.

Arrangements for the meeting to be held May 7-9, 1961 at the Mayo Hotel in Tulsa, will include several innovations, both in the scientific activities and the social events.

Ike Signs Health Care Bill For Aged

After three years of wrangling and countless legislative proposals, the U. S. Congress has agreed on a compromise bill designed to finance health care for persons over 65 years of age who are in need of such help. The final legislative outcome, H.R. 12580 (referred to as the Kerr bill), fell far short of the broad coverage contained in the much-ballyhooed Forand Bill (H.R. 4700) and thus escaped the veto power of President Eisenhower, who signed the measure into law on September 13. The new law, although it represents an amendment to Title I of the Social Security Act, does not in any way increase social security taxes. It becomes effective on October 1, 1960.

Benefits Outlined

Under the approved plan, states are permitted to enlarge their medical assistance programs for the aged, to include aged persons who are not old-age assistance recipients, but whose income and resources, as determined by the states, are insufficient to meet the costs of necessary medical services. In other words, federal-state matching funds will be available after October 1 to enlarge the scope of Oklahoma's present old-age assistance medical plan to the extent that "borderline" individuals who are *medically indigent*, but who do not otherwise qualify as welfare cases, may receive financial help with their medical bills.

States will be required to submit plans to the Secretary of Health, Education and Welfare for approval. The health program for "borderline" individuals *may* include the following, provided benefits do not exceed those offered to old-age assistance recipients: inpatient hospital services, medical, nursing, laboratory, x-ray, etc.; skilled nursing home service; out-patient services; organized home care services; private duty nursing service; therapeutic services; major dental treatment; laboratory and x-ray services; and drugs.

State plans must operate in all political subdivisions, must be administered by a single state agency and must have financial participation by the state.

Federal payments to states would be in the form of reimbursement for a portion of expenditures, according to the equalization formula now used to compute the Federal portion of old-age assistance payments. Federal participation will range from 50 to 80 per cent, based on the per capita income of the state. In Oklahoma's case, the Federal contribution will amount to about 68%.

Federal Funds for Welfare Recipients

In addition to providing for the *medically indigent*, the bill also enables Federal participation in existing medical programs for old-age assistance recipients. Thus, Oklahoma is expected to draw about $9 million annually from the Federal government to replace that amount which it is now paying for medical care for those on the public assistance rolls.

While the specific utilization of the financial windfall remains to be mapped out by the Oklahoma Department of Public Welfare, the Oklahoma Public Welfare Commission and other concerned officials, it is anticipated that some of the $9 million in state funds thus freed may be used to bolster or expand the public assistance program (medical and/or otherwsie) and the balance may be used to match Federal funds for the care of the *medically indigent* who are not on public assistance rolls.

There can be no reasonable estimate made of the number of persons who will fall into the *medically indigent* category until such time as the Oklahoma plan is finalized, specifically in regard to defining and qualifying the term "*medically indigent.*"

Other Provisions

H.R. 12580 also increases appropriations in the areas of maternal and child health services, crippled children's services and child welfare services. Eligibility for disability benefits under O.A.S.I. was liberalized by eliminating age 50 as the eligibility point.

Attempts to use this bill to bring physicians into the Social Security program were stricken earlier by the Senate Finance Committee. Moreover, a provision to lower the O.A.S.I. retirement age for men (to

Oklahoma Hosts National Conference

The National Rehabilitation Association's annual Conference will be held in Oklahoma City, October 10-12, 1960, at the Biltmore Hotel. The General Session will be in the Warner Theater, with Mary Switzer, Director, Office of Vocational Rehabilitation, Washington, D.C. presiding.

Governor J. Howard Edmondson is slated to give the welcoming address. Senator Mike Monroney and Daniel Blain, M.D., Director, Department of Mental Health of California will also address the morning session.

Platform guests will include Senator Louis H. Ritzhaupt, M.D. and his Legislative Committee on Rehabilitation Services.

At 12 noon on the 10th, the Associated Industries of Oklahoma will sponsor a members luncheon. John Seaton, Secretary-Manager of the Pennsylvania Manufacturing Association will be a principal speaker at this event. Immediately following the luncheon, Kieffer Davis, M.D., Bartlesville, will join other national leaders in discussing policies in regard to hiring physically limited workers.

The afternoon session will also feature group discussions, such as Library and Library Services, The Role of the Church in Rehabilitation and Responsibility of Homemakers in Rehabilitation.

On October 11, the morning program will feature the Delegate Assembly and business of the Association. At 1:45 p.m., Sumner G. Whittier, Administrator of Veterans Affairs, Washington, D.C. will address the Conference. At 2:30 p.m., Total Evaluation in Rehabilitation will be discussed by Shelby G. Gamble, M.D., and others of the medical profession.

That evening, the Annual Conference banquet will be held in the Civic Room of the Biltmore Hotel. The principal speaker will be Frank Freemont Smith, M.D., Director, American Institute of Biological Science, New York City.

Wednesday, October 12, the morning session will be devoted to panel discussions. C. Esco Oberman, M.D., and Frederick A. Whitehouse, M.D., will participate in the panel discussion pertaining to Communications in Rehabilitation. Rehabilitation of the Senior Citizens will feature Kirk T. Mosely, M.D.; T. Glyne Williams, M.D.; James Overfelt and David Steen. Habilitation of the Mentally Retarded will be discussed by Gunnar Dybwad, M.D., Executive Director, National Association for the Mentally Retarded, New York City.

The Oklahoma State Medical Association's Committee on Rehabilitation, chaired by Earl McBride, M.D., will participate in the meeting by preparing an exhibit on "The Physician's Role in Rehabilitation."

Copies of the program may be obtained by contacting the Executive Office of the Oklahoma State Medical Association.

62) was killed in a Senate-House Conference Committee.

Victory for Medicine

The passage of H.R. 12580 (estimated annual Federal cost: $300 million) and the ensuing defeat of an amendment on the floor of the Senate to offer complete health care to all Social Security beneficiaries (estimated annual Federal cost: $1 billion) represented a major victory for medicine, as well as for other organizations and individuals who have opposed the indiscriminate financing of health services for persons without proven need.

In contrast, the action represented a major defeat for the Democratic Party and its presidential candidate, Senator John F. Kennedy. The Democratic party had previously endorsed Forand-type legislation and Kennedy unsuccessfully championed this effort on the floor of the Senate.

Kerr's Contribution

Most prominent among the Senators who led the fight to defeat the Forand-type amendment was Senator Robert S. Kerr (D., Oklahoma). A few days before Congressional action was taken, Kerr met with representatives of the Oklahoma State Medical Association in Oklahoma City. During the heat of debate, he invited Oklahoma State Medical Association President Walter E. Brown, M.D., and Executive Secretary Dick Graham to Washington, D.C., to counsel with him regarding the real needs of Oklahoma's senior citizens.

Doctors' Aids May Improve Efficiency Through Training Courses

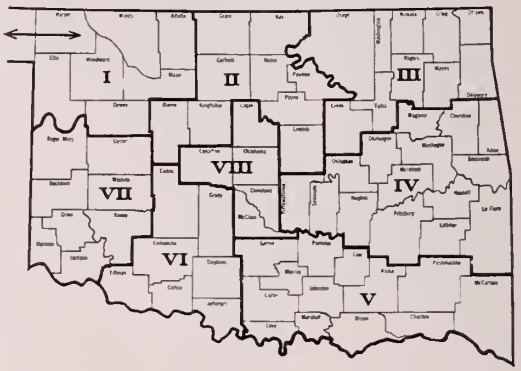
Two important educational events are shaping up for the medical assistants of Oklahoma this year. First, the University of Oklahoma Extension Division, cooperating with the state Medical Assistants society is offering for the second year, an eight week continuing education program designed specifically for the doctor's assistant. These programs which meet one night a week are called phases. With Phases I, II, III and IV developed (one semester each), this means the medical assistant has available to her, a two year education program of in-service training enabling her to better her professional status, increase her knowledge, and prove her value to her employer-physician. Basic subjects covered are medical backgrounds (history, terminology), business communications, human and public relations, office management, credit and collections, ethics, tax reporting, insurance forms, etc.

Phase I and II have been offered in Oklahoma City by the University, and Phase I has been given in Tulsa. Plans are being made to offer Phase III in Oklahoma City and Phase II in Tulsa this fall. The University is now working energetically with the state society to bring these same programs to various points in the state whereby it will be convenient for the Medical Assistant to participate although her time is limited. The present enrollment fee (based on the total expense for lecturers plus travel time, if any, divided by the number of enrollees) has been $25 for eight weeks. Past class experience has shown that in most instances the physician has been paying the enrollment fee for his medical assistant(s).

The Grass Roots Plan

The second of the two educational events is the statewide effort by the Medical Assistants Society of Oklahoma to bring *week-end* educational programs to *all* areas in Oklahoma. No matter how remote the assistant may be geographically, she will be offered the same educational material that all others are receiving in the more populated areas. To arrange this large undertaking, the society has divided the state into eight districts (Northwest, North Central, Northeast, East Central, Southeast, South Central, Southwest and Central).

EDUCATIONAL DISTRICTS, MEDICAL ASSISTANTS SOCIETY of OKLAHOMA



I Northwest District
II North Central District
III Northeast District
IV East Central District
V Southeast District
VI South Central District
VII Southwest District
VIII Central District

Each district will have an Educational Chairman and several vice-chairmen. Four meetings a year are planned for each District with the medical assistants in that district area participating. This will mean the week-end programs will be right in the medical assistant's hometown or nearby community. Registration fees will be modest to defray the expense of the meeting, and will decrease proportionately as enrollment increases. Programs established in this manner will afford the medical assistant convenience in driving distance, and the opportunity to increase her efficiency, to discuss in open-forum her every day problems with other persons in her field, and to gain a feeling of professional status.

Cooperation of M.D.'s Needed

In undertaking this large educational program for all of Oklahoma's Medical Assistants the state society will need the help and cooperation of *all* the physicians in the state to insure success. The University of Oklahoma is assisting in the programming of these meetings, and the OSMA Advisory Committee has approved them.

Plans Formulated for Oklahoma City Clinical Society

Plans are being completed for the Thirtieth Annual Fall Conference of the Oklahoma City Clinical Society to be held at the Biltmore Hotel, Oklahoma City, October 24, 25, and 26.

Fifteen guest lecturers from leading medical centers of the country will participate in general meetings as well as in the specialty lectures scheduled each morning and afternoon of the three-day meeting. The specialty sessions will consist of forty-five minute lectures followed by forty-five minute discussion periods.

Two roundtable luncheons will be held at noon each day, divided into medical and surgical groups. These luncheons will afford an opportunity for visiting physicians to meet and discuss individual problems with the guest speakers.

Furbay Featured Speaker

On Monday evening, October 24, the Oklahoma County Medical Society will be host at the annual banquet honoring the associate members and guest lecturers of the Oklahoma City Clinical Society. John H. Furbay, Ph. D., internationally known lecturer, author and world air commuter, will be the principal speaker of the evening.

On Tuesday evening, there will be specialty group dinners honoring the guest speakers. Those attending may select the group dinner of their choice.

Each year the Oklahoma City Chamber of Commerce honors the Oklahoma City Clinical Society members, their wives and guests with a dinner-dance. This event will be held on Wednesday evening in the Persian Room of the Skirvin Tower Hotel.

Upon recommendation of the Oklahoma Chapter of the American Academy of General Practice, the 1960 Fall Clinical Conference is acceptable for 12 hours of Category 1 Credit.

Guest Lecturers Named

In addition to Doctor Furbay, guest lectures will be: Robert P. Allen, M.D. (Radiology) Associate Clinical Professor of Radiology, University of Colorado School of Medicine, Denver, Colorado; Stuart W. Arhelger, M.D. (Surgery) Assistant Professor of Surgery, University of Minnesota Medical School, Minneapolis Minnesota; Don W. Chapman, M.D. (Medicine) Clinical Professor of Medicine, Baylor University College of Medicine, Houston, Texas; Wesley E. Compere, Jr., M.D. (Otolaryngology) Associate Professor of Surgery, (Otorhinolaryngology), University of Southern California School of Medicine, Los Angeles, California; Clifford F. Gastineau, M.D. (Medicine) Associate Professor of Medicine, University of Minnesota Graduate School, Rochester, Minnesota; Louis J. Girard, M.D. (Ophthalmology) Professor and Head, Division of Ophthalmology, Baylor University College of Medicine, Houston Texas;

Charles F. Gregory, M.D., (Orthopedic) Associate Professor of Surgery, Chairman Division of Orthopedic Surgery, University of Texas Southwestern Medical School, Dallas, Texas; Stanley F. Hampton, M.D. (Allergy) Assistant Professor of Clinical Medicine and Director of Allergy Clinic, Washington University School of Medicine, St. Louis, Missouri; Howard C. Hopps, M.D. (Pathology) Professor and Chairman, Department of Pathology, University of Texas-Medical Branch, Galveston, Texas; Howard W. Jones, Jr., M.D. (Gynecology) Associate Professor Gynecology, Johns Hopkins University School of Medicine, Baltimore, Maryland; Edward T. Krementz, M.D. (Surgery) Associate Professor of Surgery, Cancer Teaching Coordinator, Tulane University School of Medicine, New Orleans, Louisiana; Walter C. Lobitz, Jr., M.D. (Dermatology) Professor and Head, Division of Dermatology, University of Oregon Medical School, Portland, Oregon;

Theo C. Panos, M.D. (Pediatrics) Professor and Chairman, Department of Pediatrics, University of Arkansas Medical Center, Little Rock, Arkansas; E. H. Parsons, M.D. (Psychiatry) Assistant Clinical Professor of Neuropsychiatry, Washington University School of Medicine, St. Louis, Missouri; and Robert A. Ross, M.D. (Obstetrics) Professor and Chairman, Department of Obstetrics and Gynecology, University of North Carolina School of Medicine, Chapel Hill, North Carolina.

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Host reaction to injury or local infection has a catabolic and an anabolic phase. The body responds with inflammation, swelling and pain. In time, the process is reversed. VARIDASE speeds up this normal process of recovery. By activating fibrinolytic factors VARIDASE shortens the *undesirable phase*, limits necrotic changes due to inflammatory infiltration, and initiates the constructive phase to speed total remission. Medication and body defenses can readily penetrate to the affected site; local tissue is prepared for faster regrowth of cells. In infection, the fibrin wall is breached while the infection-limiting effect is retained. In acute cases, response is often dramatic. In chronic cases, VARIDASE Buccal Tablets can stimulate a successful response to primary therapy previously considered inadequate or failing.

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1. Innerfield, I.: Clinical report cited with permission
2. Clinical report cited with permission

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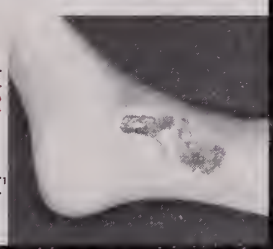


FORCE INJURY
severe bruises
. . . swelling
. . . cleared
by fifth day[2]





VARICOSE
ULCER
15 years duration
. . . resolved with
VARIDASE[1]





INFLAMMATORY
DERMATOSIS
rapidly spreading
rhus dermatitis
healed within
a week[1]





INFECTED
LACERATION
marked reversal
in 3 days . . .
returned
to school . . .
closure advanced[1]



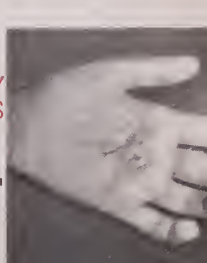


THROMBOPHLEBITIS
back on his feet
in a week after
recurrent episode[1]





REFRACTORY
CELLULITIS
normal routine
resumed after 4 days
of VARIDASE[1]



New Bill Provides Non-Service-Connected Out-Patient Care for Vets

In February 1955, the Hoover Commission's Task Force on Federal Medical Services recommended that Congress limit non-service-connected care to disabilities for which the need of medical treatment was established within three years after discharge and that out-patient care following hospitalization in these cases be authorized when medical need for such care was established at the time of admission. At that time, the Task Force estimated that such a restriction would save $150 million *annually*.

The Commission itself, feeling that such a time-limit on non-service-connected care would go against the general national sentiment, took up only the second portion of this recommendation, and suggested outpatient care, prior to and following hospitalization, for indigent veterans with non-service-connected disabilities. The Commission suggested that this would help minimize the demand for hospitalization.

The American Medical Association pointed out that dropping the three-year cut-off and adding out-patient care would lead to expansion of VA services, rather than the economy which the Commission was established to achieve; in June 1955, the House of Delegates noted that it agreed, in the main, with Task Force recommendations but could not agree with changes the Commission had made in these recommendations.

In the intervening years, the AMA and its Committee on Federal Medical Services have frequently pointed out the waste resulting from current methods in VA hospital care, whereby non-service-connected patients who would ordinarily be examined and their illnesses diagnosed in a doctor's office go through these procedures as in-patients, and veterans who could be convalescing at home remain in the hospital until completely restored. The medical profession has suggested, in solution, more emphasis on community care and less on the VA system.

This year there is a bill in Congress, already approved by the House Committee on Veterans' Affairs, which takes the opposite tack. H.R. 7965 introduced by Rep. Teague (D., Texas) would, for the first time, legally authorize out-patient care, at VA expense, for non-service-connected cases.

Present Out-Patient Program

The Veterans' Administration is, of course, already providing a considerable amount of out-patient care. In fiscal year 1958, over 2.1 million out-patients were provided with care, rehabilitation treatments, or various types of examinations—about 1.6 million by VA staff physicians and over half a million by private physicians, on a fee-for-service basis. (The actual number of individual patients and visits is not reported; an "out-patient" is defined as an individual receiving out-patient services one or more times during a given month, so that the total number of visits is almost certainly larger while the total number of veterans treated, allowing for those who made visits in more than one month, would be smaller.)

Legally, out-patient care is authorized for the treatment of service-connected disabilities and *any* disability of a Spanish-American War veteran is considered as service-connected for the purpose of providing out-patient treatment.

The VA also provides some out-patient convalescent care for non-service-connected cases through a legal fiction, "CBOC" (Continuation of Bed Occupancy for Convalescent Care). Under this system, the veteran is not officially discharged from the hospital rolls until his convalescence is complete, since non-service-connected care is authorized for hospitalized patients only, although he may be present only for out-patient treatment.

Text of Bill

The new bill, in its original form, authorized the Administrator of Veterans' Affairs to "furnish medical services for a non-service-connected disability" in three different instances: "in preparation for admission of a veteran for hospital care, . . . where such care is reasonably necessary in determining whether or not hospital care is needed . . . (or where) out-patient care is reasonably necessary to complete treatment incident to such hospital care."

In the final form, as voted on in Congress, the second provision was deleted, so that

out-patient care was authorized only for veterans scheduled for hospital admission and for those requiring convalescent care.

The American Medical Association has, of course, long held that care for civilian disabilities of veterans is not a legitimate Federal responsibility and that the laws should be changed to restrict VA care to service-connected cases; under present laws, it has recommended emphasis on financially catastrophic illness, rather than those requiring only short-term and less expensive care.

H.R. 7965 with its resultant expansion of the VA medical system, therefore runs directly contrary to the medical profession's recommendations.

As a matter of fact, even the Veterans' Administration took note of the fact that though this bill attempted to relate out-patient care only to hospital care, "it *might* be the opening wedge to further extension of this type of treatment."

VA Expansion

It is not merely a possibility, but a certainty that passage of this bill would lead to a considerable expansion of the VA medical care program, since it contains no provisions to keep care at the present level.

If merely the hospital facilities of the Veterans Administration are considered, such a bill might increase *efficiency*, since the VA would be authorized to provide on an out-patient basis any services for which hospitalization was not necessary; but it would also increase the feasible patient load.

For example, in calendar year 1957, there were 477,095 patients discharged from VA hospitals, with an average stay of 70.2 days. During the 1960 hearings of the House Veterans' Affairs Committee, the manager of one VA hospital estimated that such admission tests as urinalysis, blood counts, and screening X-ray take the doctors on the ward "2 or 3 days to get." If even this very minimal two-day reduction in the average stay were achieved throughout the VA hospital system, over *14 thousand* more veterans could be treated without adding to the total number of hospital days' care provided.

But this is only a seeming economy, since (as this same physician pointed out) present VA staffs could not handle the increased laboratory load. In other words, although the average stay would be shorter, the increased patient load would require more technicians, more paramedical personnel, and more physicians—merely to handle the increase in the annual patient load.

In fact, according to VA reports, only 33 of the existing VA out-patient clinics are directly connected with VA hospitals. The bill could well mean the addition of new out-patient departments at about 140 hospitals at present without them.

Nor would there be any total reduction in *hospital* costs, since the total bed occupancy would remain the same and the number of admissions would *increase*—with a concomitant increase in the number of in-hospital medical and surgical procedures, drug costs, and other factors which depend on the number of cases rather than of hospital days alone.

NSC Hometown Care?

It has already been noted that, even if only present VA facilities were used, this bill would lead to expanded staffing and expenditures. However, *the proposed out-patient care is not legally confined to VA facilities* . . . (although even the term "VA facilities" is defined, *by law*, to include the facilities of other government agencies and private facilities for which the Administrator contracts.)

Even this broad definition of "VA" facilities does not limit the outpatient care which this bill would provide—the language of the bill merely states that "The Administrator *may* also *furnish medical services* for a non-service-connected disability" for the two types of cases previously listed.

Since section 213 of the law already authorizes the Administrator to "enter into contracts or agreements with private or public agencies or persons, for such necessary services (including personal services) as he may deem practicable," the decision as to how and where these out-patient services would be provided is left entirely in the agency's hands.

Technologists Urged to Join Oklahoma Society

Since only 49% of eligible laboratory workers in Oklahoma belong to their professional organization, the Oklahoma Society of Medical Technologists is interested in increasing its membership.

The state society is an affiliate of the American Society of Medical Technologists. While the national group sets it own membership requirements (Master or Ph.D. degree from an accredited school and registered as a medical technologist with the American Society of Clinical Pathologists), it gives its state affiliates the power to establish local membership requirements.

Non-ASCP registered technicians may apply for associate memberships in the Oklahoma Society of Medical Technologists without having to meet the requirements of the A.S.M.T. The $4 annual dues entitle associate members to the state bulletin, published six times a year, a certificate of membership and attendance eligibility for all local and state seminars and conventions. Such members do not have voting privileges, however.

Dues for ASMT-OSMT membership are $16.00 per year. The Board of Registry of Medical Technologists of the American Society of Clinical Pathologists charges $20 for the qualifying examination.

Among the accomplishments of the affiliated state and national organizations are:

1. Professional classification for Civil Service employment.
2. Commissions in the Armed Forces.
3. Official opposition against unions.
4. Equal representation with pathologists on the Board of Registry and the Board of Schools.
5. Two national films: "Career-Medical Technology," and "The Human Cell and the Cytotechnologist."
6. ASCP Registry has the authority to give qualifying examinations for blood bank technologists.

Further information on membership may be obtained from Thomas B. Lamson, M.T. (ASCP) BB, Valley View Hospital, Ada, or from William F. Kidd, OSMT Treasurer, at the same address.

AAPS Will Meet in St. Louis

The Association of American Physicians and Surgeons will hold its 17th annual meeting at the Sheraton-Jefferson Hotel in St. Louis, September 29, 30, October 1, 1960.

Listed among the eminent speakers who will address the group are Edwin Vennard, Managing Director of the Edison Electric Institute, New York City; W. Cleon Skousen, author of "The Naked Communist," Salt Lake City; F. Gano Chance, President and Chairman, A.B. Chance Co., Centralia, Missouri; Doctor Sidney L. DeLove, President of Cook County Federal Savings, Chicago; Doctor Revilo P. Oliver, Professor of the Classics, University of Illinois; Robert Welch, Founder of John Birch Society, Belmont, Massachusetts; and Mal Rumph, M.D., AAPS Past President.

Featured speaker for the annual banquet will be the Honorable Barry Goldwater, United States Senator from Arizona.

Wives of attending physicians are urged to attend all speaking sessions with their husbands.

Programs may be obtained from the Association of American Physicians and Surgeons, 185 North Wabash Avenue, Chicago 1, Illinois.

AUA Offers Essay Prizes

The American Urological Association offers an annual award of $1000 (first prize of $500, second prize $300 and third prize $200) for essays on the result of some clinical or laboratory research in urology. Competition is limited to urologists who have been graduated not more than ten years, and to hospital internes and residents doing research work in urology.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Biltmore, Los Angeles, California, May 22-25, 1961.

Detailed information may be obtained by writing to Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be received before December 1, 1960.

Have You Heard?

JOEL W. ANDERSON, M.D., a graduate of Howard University School of Medicine, Washington, D.C., and former Okmulgeean, is joining the staff of the A. M. Stephens Clinic, 525 East Fifth Street in Okmulgee.

J. E. KING, M.D., a recent graduate of the University of Oklahoma School of Medicine, has established a clinic at 208 S.E. A Street in Stigler.

Oklahoma State Radiological Society officers are J. W. MURPHREE, M.D., Ponca City, President; SAM GLASSER, M.D., Oklahoma City, Vice-President; E. D. GREENBERGER, M.D., McAlester, Secretary; and SAMUEL POLLACK, M.D., Tulsa, Treasurer.

JOHN KIENZLE, M.D., recent graduate of the University of Oklahoma School of Medicine, has established a practice in Shawnee.

RALPH A. MCGILL, M.D., Tulsa, was honored by the American Cancer Society's Tulsa unit when he was named as the unit's first Honorary Life Member.

HENRY H. TURNER, M.D., Oklahoma City endocrinologist, attended the International Goiter Conference in London and the Congress of Endocrinology in Copenhagen during July.

GEORGE M. BROWN, JR., M.D., McAlester, was chief medical officer for the Oklahoma section of the Fifth National Boy Scout Jamboree held in Colorado Springs during July.

VICTOR HANSON, M.D., has recently established his practice in Weleetka. He is a graduate of the University of Oklahoma School of Medicine.

The Loy Clinic, Pawhuska, has announced that RICHARD F. HARPER, M.D., a graduate of the University of Oklahoma School of Medicine, is now associated with the clinic.

A 1959 graduate of the University of Oklahoma School of Medicine, MERLE CARTER, M.D., is now associated with CLAUDE WILLIAMS, M.D., at the Okeene Clinic.

R. A. CONLEY, M.D., a graduate of the University of Oklahoma School of Medicine last year, is a new member of the staff of the Watonga Clinic.

RICHARD B. JOHNSON, M.D., son of A.L. JOHNSON, M.D., El Reno, has joined his father in medical practice in El Reno.

DAVID O. CHILDERS, M.D., a native of Louisiana and graduate of the University of Oklahoma School of Medicine, has joined the staff of the Broadway Clinic in Shawnee.

MARSHALL INGRAM, M.D., a 1958 graduate of the University of Oklahoma School of Medicine, recently established his practice in Anadarko and is located at the Anadarko Clinic.

A native of Lawton, RONALD E. CAGLE, M. D., has joined the staff of the Bynum-Compton Clinic in Pryor where he will specialize in pediatrics. Since graduating from the University of Oklahoma School of Medicine, Doctor Cagle has completed residency training at Children's Memorial Hospital, Oklahoma City.

J. E. GRIFFIN, M.D., is a new staff member of the Bell Clinic in Tishomingo. A University of Oklahoma School of Medicine graduate, Doctor Griffin took residency training in general surgery at Hillcrest Medical Center in Tulsa.

DELBERT MCGINNIS, M.D., who was recently released from medical service with the Air Force, has established his practice in Oklahoma City.

JIM DUCKETT, M.D., who recently completed his residency in plastic surgery at St. Anthony's Hospital, is now associated with GEORGE KIMBALL, M.D., Oklahoma City.

Coming Meetings

Fourteenth Annual
SOUTHWEST REGIONAL CANCER CONFERENCE
Academy of Medicine
October 23, 1960 — **Fort Worth, Texas**

John R. McDonald, M.D., pathologist, Harper Hospital, Detroit, Michigan; Juan Angel del Regato, M.D., radioligist, Penrose Cancer Hospital, Colorado Springs; and Bentley P. Colcock, M.D., surgeon, Lahey Clinic, Boston, will be guest lecturers for the Fourteenth Annual Southwest Regional Cancer Conference to be held in Fort Worth, October 23, 1960.

Further details may be obtained by writing to the American Cancer Society, Tarrant County Unit, Suite 111-115 Westchester House, 554 Summit, Fort Worth 2, Texas.

CLINICAL SYMPOSIUM
on
PEDIATRIC ONCOLOGY
November 11-12, 1960 — **Houston, Texas**

The University of Texas Postgraduate School of Medicine and The University of Texas M.D. Anderson Hospital and Tumor Institute will co-sponsor a Clinical Symposium on Pediatric Oncology in Houston on November 11-12, 1960.

Important aspects of chemotherapy, surgery and radiotherapy in the management of children with various types of neoplastic disease will be covered.

For further information write to Office of the Dean, The University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25, Texas.

CORONARY ARTERY DISEASE
Nov. 28-Dec. 2, 1960 — **Texas Medical Center**
Houston, Texas

The University of Texas Postgraduate School of Medicine will present a symposium on Coronary Artery Disease, November 28 through December 2, 1960 at the Texas Medical Center, Houston, Texas. Six guest lecturers, augmented by a local faculty, will present the program.

This five-day program has been approved by the Academy of General Practice for Category I Credit. No tuition will be charged unless physicians attending desire AAGP credit in which case a $5.00 registration fee will be required.

For further information write: Office of the Dean, University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25, Texas.

ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS
September 29, 30 and October 1, 1960 — **St. Louis, Missouri**
Shearton-Jefferson Hotel

The 17th Annual Meeting of the Assembly and Delegates of the Association of American Physicians and Surgeons will be held September 29, 30, October 1, 1960 at the Sheraton-Jefferson Hotel in St. Louis, Missouri. Further details may be obtained by writing to Louis S. Wegryn, M.D., President, AAPS, 185 North Wabash Avenue, Chicago 1, Illinois.

Southern Chapter
of the
AMERICAN COLLEGE OF CHEST PHYSICIANS
October 30-31, 1960 — **St. Louis, Missouri**

The Southern Chapter of the American College of Chest Physicians will hold its 17th annual meeting at the Statler-Hilton Hotel in St. Louis, Missouri, October 30-31, 1960.

Further details may be obtained by writing the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

ASSOCIATION OF MILITARY SURGEONS
October 30-November 1, 1960 — **Washington, D.C.**
Mayflower Hotel

The 67th Annual Convention of the Association of Military Surgeons will meet October 30, 31, November 1, 1960 at the Mayflower Hotel in Washington, D.C.

There is no registration fee for the session and reserve officers attending the meeting may register for credit points.

For detailed information, write to the Association of Military Surgeons, 1726 Eye Street, N.W., Washington 6, D.C.

INTERSTATE POSTGRADUATE MEDICAL ASSOCIATION
October 31-November 3, 1960 — **Pittsburgh, Pennsylvania**
Pittsburgh Hilton Hotel

The 45th Scientific Assembly of the Interstate Postgraduate Medical Association will be held at the Pittsburgh Hilton Hotel in Pittsburgh, Pennsylvania October 31—November 3, 1960. The assembly is acceptable for a maximum of 16½ hours of Category 1 credit by the American Academy of General Practice.

Programs may be secured by writing to Roy T. Ragatz, Executive Director, P.O. Box 1109, Madison 1, Wisconsin.

Sixth Annual Meeting
AMERICAN RHINOLOGIC SOCIETY
October 8, 1960 Chicago, Illinois
Belmont Hotel

The American Rhinologic Society will hold its sixth annual meeting at the Belmont Hotel, Chicago, October 8, 1960.

No registration fee will be required and further information may be obtained by writing Robert M. Hansen, M.D., secretary, American Rhinologic Society, 1735 North Wheeler Avenue, Portland 17, Oregon.

COURSE IN LARYNGOLOGY AND BRONCHOESOPHAGOLOGY
October 17-20, 1960 University of Illinois
College of Medicine
Chicago, Illinois

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in Laryngology and Broncheosophagology from October 17 through October 29, 1960, under the direction of Paul H. Holinger, M.D.

Registration will be limited to fifteen physicians who will receive instruction by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants may write to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

Book on Care of the Aged Now Available

The new Catholic Hospital Association publication on the care of the aged, "The Administration of Long-Term Care Facilities," is now available.

Sixteen recognized authorities in the field of geriatric care present material relating to the various aspects of care for the aged in an institutional setting. The papers also deal with problems of administration in such facilities.

The book is a collection of papers originally presented at an institute held in St. Cloud, Minnesota, sponsored by the Catholic Hospital Associaton of the United States and Canada and the Diocese of St. Cloud, which attracted attention of representatives from nursing homes in 15 states.

Price of the new publication is $1.50 each. Quantity prices are available on request from the Publications Department, Catholic Hospital Association, 1438 South Grand Blvd., St. Louis 4, Missouri.

Deaths

Loren Guy Blackmer, M.D.
1881-1960

Loren Guy Blackmer, M.D., pioneer Texas county physician, died in Hooker August 7, 1960.

A native of Albert Lea, Minnesota, Doctor Blackmer graduated from Illinois University College of Physicians and Surgeons in 1904. After practicing in Illinois and Colorado, he came to Oklahoma where he practiced in Guymon and Hooker.

In recognition of his years of service to the medical profession, Doctor Blackmer was awarded a Life Membership in the Oklahoma State Medical Association in 1957.

"Doctor Blackmer Day" was observed by the citizens of Hooker in 1956 when the townspeople set aside one day to honor him and express their gratitude for his devotion to the town and surrounding territory.

Albert N. Earnest, M.D.
1890-1960

Albert N. Earnest, M.D., a Muskogee physician since 1913, died at his home on July 27, 1960.

Born in Gore, Indian Territory, in 1890, Doctor Earnest graduated from the University of Tennessee School of Medicine in 1913.

Doctor Earnest spent two years with the Veterans Administration Hospital in Asheville, North Carolina, returning to Muskogee in 1934. He served as a Major in the Medical Corps during World War II.

Allen C. Kramer, M.D.
1900-1960

Allen C. Kramer, M.D., Tulsa surgeon, died August 19, 1960.

Born in Rockport, Indiana in 1900, Doctor Kramer had spent most of his life in Tulsa. He graduated from the University of Oklahoma School of Medicine in 1925. After practicing for six years in Ponca City, he returned to Tulsa and established his practice there.

From 1932 to 1936, he was Tulsa County health officer.

Auxiliary News

Bells Are Ringing

Many of the old truismatic drills we used in learning to type are applicable to this back-to-school and back-to-organization time of year. For example, now is the time for all good Auxiliary members to come to the aid of membership.

If the ground-work covered in one of our spring articles has been followed, even partially, now *is* the time to culminate your contacts, letters and telephone calls for new members. If you have not yet written letters, you may want to follow the example of one of our larger auxiliaries. The letter included: an invitation to join; the theme, *Preserve and Enhance American Medicine;* and an outline of the type of programming planned, together with social activities anticipated during the coming year. Such a letter provides the prospective member something tangible, a positive evaluation of the worth of the auxiliary program for her individual consideration.

Wish and Work

"Wish and work for what you want."—Most of us despised the short, jerky sentences included in practicing the "w's." But the wisdom of some of them becomes apparent. Membership, in the true sense, means not only gaining new members, but maintaining the active interest of doctors' wives who are already members. This goal is obviously not attained by wishes, but by work—the combined responsibility of the executive board and the individual members.

In some auxiliaries membership is so small that officers are automatically recruited—an unavoidable, yet regrettable circumstance. How can this be combatted? One young friend of mine accepted the presidency of an organization slowly declining in both membership and interest in this manner: "This is a time to be realistic. If we were a small corporation, convinced of the need and the worth of our product and services, we would do everything within our power to increase its worth. What I ask you to do can be accomplished quickly and reasonably: Let us all work together as if we were on salary, 'pushing for a raise,'—and sharing in corporation profits." Try it.

Health Careers

Do you also remember another old practice sentence?—"When a man plants a seed of corn, he does not go out the next day to look for a new stalk of corn." We can aptly apply this old truism to our Health Careers program. The normal seed planting time is early in the high school years; but if students have not been reached at all, the beginning of the senior year is perhaps the last opportunity we will have to plant the seed for Health Careers.

Every high school principal, counsellor or sponsor should have copies of *Careers in Nursing in Oklahoma*. This pamphlet outlines general information, accrediting and licensure, and lists accredited schools of nursing in our state. Early in the year an Auxiliary member should visit each Future Nurses' Club or Health Careers Club and explain our own State Nurse Loan Fund. (Some high schools are unaware of its existence.) Timing is of great importance; each year we lose many qualified students who can be encouraged toward Health Careers—and whom we can help financially. For additional information, contact our Health Careers Chairman (formerly Recruitment), Mrs. J. N. Owens, Jr., 8614 Waverly, Oklahoma City. Our Nurse Loan Fund Chairman is Mrs. E. C. Mohler, 731 Monument, Ponca City.

This is truly the time of year when every member can come to the aid of Auxiliary!

PHYSICIAN PLACEMENT

General Practice

Johnny Bill Delashaw, U.S.P.H.S. Hospital, Wyman Park Drive and 31st Street, Baltimore 11, Maryland, age 27, married, University of Texas Medical Branch, 1959, available July 1960.

John William Kennard, M.D., Blowing Rock Hospital, Blowing Rock, North Carolina; married; age 29; Bowman Gray School of Medicine, 1956; veteran; available August 29, 1960.

Robert D. McKay, M.D., Edgewood, Texas; Age 70; married; University of Illinois, 1907; available now.

Carle H. Schroff, M.D., 3811 State Line, Kansas City 11, Missouri: Age 31; married; University of Kansas. 1959; veteran: available August, 1960.

Internal Medicine

Jeanne B. Johnson, M.D., 4917 SE Cornell Drive, Bartlesville, Oklahoma; age 31; married; University of Oklahoma School of Medicine, 1955; specialty, internal medicine; eligible, immediately.

Thomas Turner Walton, Jr., M.D., 7375 Churchill, Detroit, Michigan: Age 29; married; Baylor College of Medicine, 1955; Board eligible; veteran; specialty, internal medicine; desires group or associate practice: eligible, July 1961.

Locum Tenens

Harold W. Calhoon, M.D., Wesley Hospital, Oklahoma City. One year residency in Internal Medicine. Available July 1 to September 15th, 1960.

Russell M. Preston, M.D., 476 San Juan, Oak Harbor, Washington, desires six month's work in General Practice between time of separation from military service to beginning of residency training, January-July, 1960.

Obstetrics and Gynecology

Gerald R. Keilson, M.D., Medical Arts Building, Dallas, Texas, age 31, married, University of Texas, 1953, board qualified, veteran, available in July 1960.

Juan C. Ruiz, M.D., 350 Park Ave., Lexington, Kentucky; age 36; married; University of San Marcos Medical School 1952; no military obligations; available July 1, 1960.

Robert B. Williams, M.D., 27 Normandy Road, Auburndale 66, Massachusetts; married; age 30; Tulane University, 1955; board certified; available July 1, 1961.

Orthopedics

Newsom Stool, M.D., c/o Mayo Clinic, Rochester, Minnesota; age 30; married; Baylor University 1953; Board eligible; available July 1960.

Urology

Alex Grossman, M.D., V.A. Center, Temple, Texas, 42, married, University of Texas, 1951, board certified, veteran, available now.

"I WEAR A HANGER LEG...



. . . yet ride a bike and ice skate, and have learned to raller skate, skip, and walk dawn the steps faat-over-faat."

Marian Phillips, school girl, began wearing a Hanger Hip Cantral Leg at the age of 10. The carrect fit and dependable perfarmance af her Hanger Leg have enabled Marian ta take part in the narmal activities af a teen-age girl. Her amazing rehabilitation is not unusual, athers have been equally successful, and most Hanger wearers are able ta return to a normal active life.

Hanger PROSTHESES

E & J SALES, SERVICE, RENTALS

628 N. Hudson St. Oklahoma City 3, Okla.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association, September, 1935.

ORAL ADMINISTRATION OF TYPHOID VACCINE

H. D. Moor, M.D., and Ida Lucille Brown, M.S.
Department of Bacteriology
University of Oklahoma Medical School
Preliminary Report

Since the establishment of the fundamental principles underlying the production of active acquired immunity by Pasteur in 1877, a variety of methods have been used such as intradermal, subcutaneous, intramuscular, intravenous and oral administration. Pasteur first used the oral method in immunizing fowls against chicken cholera. He fed them the attenuated organisms in their food and succeeded in immunizing them against this disease. We are all familiar with Calmette's B.C.G. Vaccine. This vaccine, however, is far from being established as a safe method.

Until the present year the Bacteriology department here has given little thought to the oral administration of vaccines of any kind. It was brought to our attention by one of our leading biological houses and we rather half-heartedly started to work with it. The results of our experiments have encouraged us to further investigate this problem. They confirm generally the findings of the majority of research workers with oral administration of typhoid vaccine.

No reaction resulted in any one of the ten vaccinated. This method used was a modification of Besredka's method. Bile was given with the first dose only. We intend using the original Besredka method with our next group.

A study of the protocol showing the results of our experiments reveals that the blood of those individuals who had been previously vaccinated by subcutaneous method showed a higher agglutinin titer six weeks after the administration of oral vaccine than did the blood of those who had had no previous vaccination.

The blood of all showed definitely the presence of agglutinins running from a titration of 1-160 to 1-1280. The agglutinating effect of an individual's blood on B Typhosus is now generally accepted as a measure of his resistance to typhoid fever.

The oral method of giving typhoid vaccine (as far as the results of our experiments go) produces a concentration of agglutinin antibodies greater than having typhoid fever does.

We hope to test out more extensively the value of this method of administering typhoid vaccine. If it is really as effective as the subcutaneous method it will mean a great saving in time and money to the State of Oklahoma, should they adopt it in the public health work.

MISCELLANEOUS ADVERTISEMENTS

FOR RENT: Available October 1, Clinic Building to accommodate one or two doctors. Excellent facilities. Long-established background. Located 318 West Commerce. Contact Miss Dining, ME 4-0573 or CE 6-5222.

WANTED: Surgeon to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

FOR RENT: Office space for two doctors. New air-conditioned clinic building. 1714 S. Midwest Blvd., Midwest City, Okla. Complete maintenance. Plenty of free parking for patients. Other two suites occupied by general practitioners. PE 2-4589.

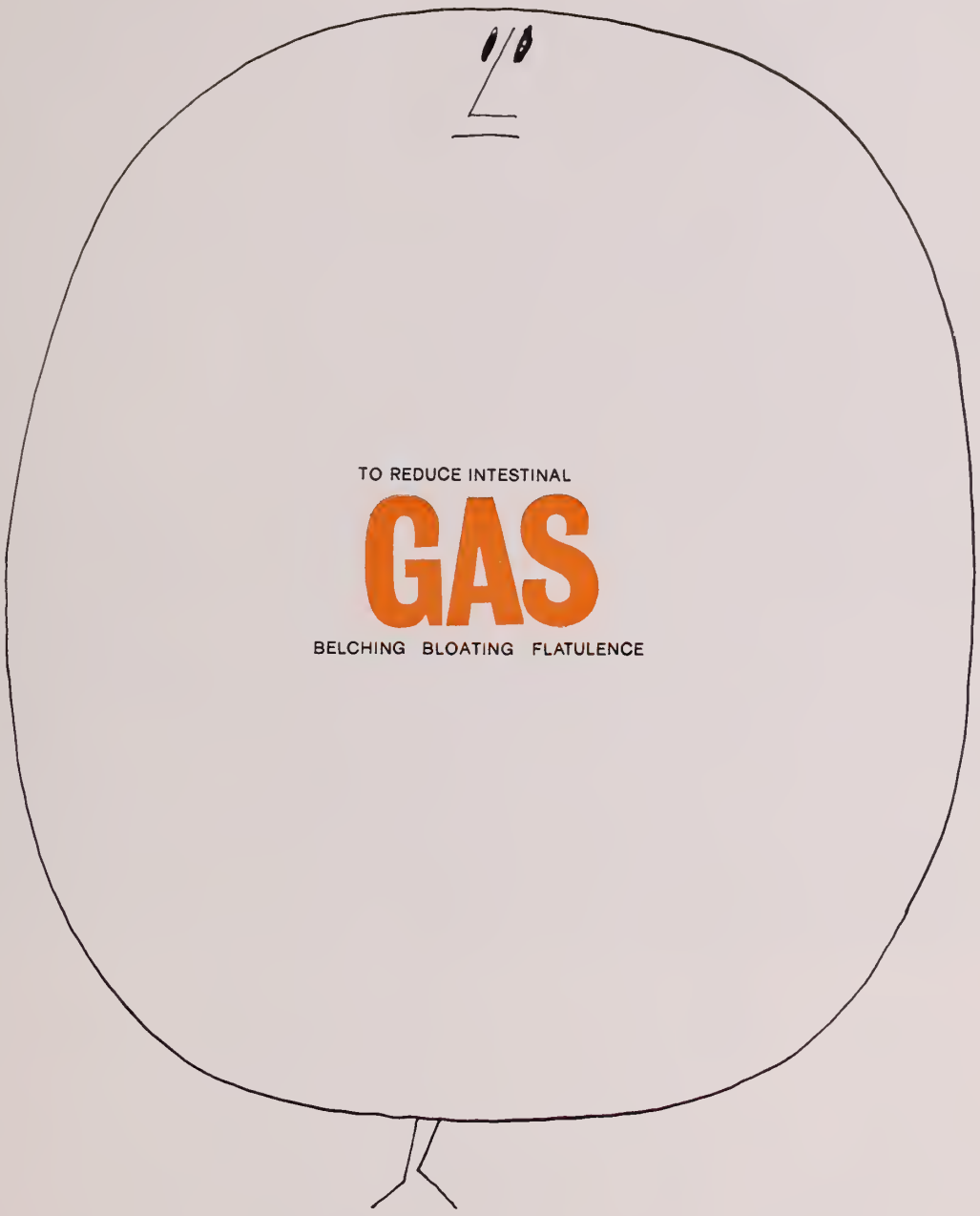
WANTED: Internist to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

PHYSICIAN for Ramona, Oklahoma, growing ranch-farm community, over 1,000 trade area, 35 miles from Tulsa. Will build. Bring family, visit. Merle Smith, President, Ramona Medical Building.

FOR RENT IN TULSA: Suite of four rooms in clinic with two doctors and a dentist. Mrs. L. C. Northrup, 1828 E. 32nd Place, Tulsa, Oklahoma.

FOR SALE: Burdick EK 111 ECG; Hamilton, coral colored examining table; Castle Autoclave. All are practically new and are reasonably priced. Jeanne B. Johnson, M.D., 4917 E. Cornell, Bartlesville, Oklahoma.

FULLY EQUIPPED general practice office and x-ray practice immediately available. May be purchased with the income from the practice. Ideal for internist or generalist. Call WE 6-9453 or write John C. Kramer, M.D., 1547 South Lewis, Tulsa 4, Oklahoma.



A biochemical compound used to diminish intestinal gas in healthy persons and those patients having digestive disorders ■

KANULASE

Each Kanulase tablet contains Dorase,* 320 units, combined with pepsin, N.F., 150 mg.; glutamic acid HCl, 200 mg.; pancreatin, N.F., 500 mg.; oxbile extract, 100 mg. Dosage: 1 or 2 tablets at mealtime. Supplied: Bottles of 50 tablets.

*DORSEY BRAND OF CELLULASE, EXPRESSED AS DIGESTIVE ACTIVITY UNITS

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska



even in allergic infants



FROM A CLINICAL STUDY* IN ANNALS OF ALLERGY

Patients	200 infants and children, ages 2 months to 14 years
Diagnosis	Perennial allergic rhinitis
Therapy	Dimetane Elixir
Results	in 149, *good* results / in 40, *fair* results
Side Effects	Encountered in *only* 7 patients (in all except one, the side effect was mild drowsiness)

In allergic patients *of all ages,* Dimetane has been shown to work with an effectiveness rate of about 90% and to produce an exceptionally low incidence of side effects. Complete clinical data are available on request to the Medical Department. *Supplied:* DIMETANE Extentabs® (12 mg.), Tablets (4 mg.), Elixir (2 mg./5 cc.), new DIMETANE-TEN Injectable (10 mg./cc.) or new DIMETANE-100 Injectable (100 mg./cc.).

Robins

*MC GOVERN, J. P., MC ELHENNEY, T. R., HALL, T. R., AND BURDON, K. D.: ANNALS OF ALLERGY 17:915, 1959.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA / ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878

† PARABROMDYLAMINE MALEATE

"...extraordinarily effective diuretic..."[1]

Efficacy ond expanding clinical use are making Noturetin the "diuretic of choice"[2] in edema and hypertension. It maintains a favorable urinary sadium-patassium excretion ratio, retains a balanced electralyte pattern, and causes a relotively small increase in the urinary pH.[3] Mare patent than ather diuretics, Naturetin usually pravides 18-hour diuretic actian with just a single 5 mg. tablet per day — ecanamical, once-a-day dasage far the patient. Naturetin c̄ K — far added protectian in thase special conditions predisposing to hypakalemia and for patients on long-term therapy.

Supplied: Naturetin Tablets, 5 mg., scored, and 2.5 mg. Naturetin c̄ K (5 c̄ 500) Tablets, capsule-shaped, cantaining 5 mg. benzydroflumethiazide and 500 mg. potassium chloride. Naturetin c̄ K (2.5 c̄ 500) Tablets, capsule-shaped, containing 2.5 mg. benzydroflumethiazide and 500 mg. patassium chlaride. Far complete infarmatian consult package circular ar write Prafessianal Service Dept., Squibb, 745 Fifth Avenue, New Yark 22, N. Y.

References: 1. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 2. Friend, D. H.; Clin. Pharm. & Therap. 1:5 (Mar.-Apr.) 1960. 3. Ford, R. V.: Current Therap. Res. 2:92 (Mar.) 1960.

Naturetin Squibb Benzydroflumethiazide

Naturetin c̄ K Squibb Benzydroflumethiazide with Potassium Chloride

SQUIBB



"NATURETIN" IS A SQUIBB TRADEMARK.

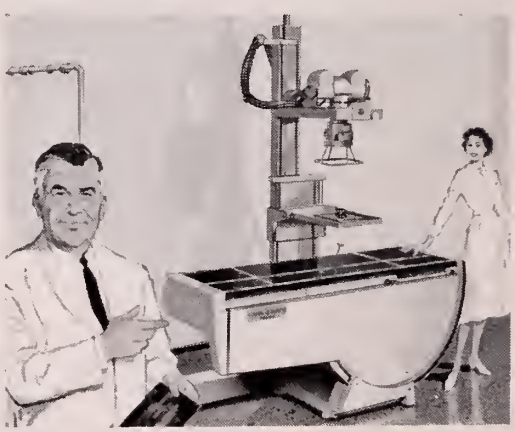
Don't settle for "slow-power" x-ray



get a full 200-ma with your Patrician combination

When anatomical motion threatens to blur radiographs, the 200-ma Patrician can answer with extreme exposure speed, *twice* that of any 100-ma installation. Film images show improved diagnostic readability . . . retakes are fewer. And you'll find the G-E Patrician is like this in everything for radiography and fluoroscopy: built right, priced sensibly, *uncompromising* in assuring you all basic professional advantages. Full-size 81" table . . . independent tubestand . . . shutter limiting device . . . automatic tube protection . . . counterbalanced fluoroscope, x-ray tube and Bucky . . . full-wave x-ray output.

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"be sure to make up more **TRICHOTINE** solution for our examining room."

You can see for yourself the efficient detergent action of Trichotine solution in reducing promptly a cervical plug (using a saturated cotton pledget), or washing away the "cheesy" exudate of monilia.

TRICHOTINE is just as effective for therapeutic irrigation by your patient at home

The same qualities — detergency, antisepsis, healing — make Trichotine ideal for the treatment of cervico-vaginitis and leukorrheas, alone or in conjunction with other antimicrobials. In the itching, burning, and foul odor of non-specific vaginitis and leukorrhea the action of Trichotine is immediate and gratifying to the patient.

The more you expect of a douche, the more you will use Trichotine in the office and prescribe it for home irrigation, and recommend it as well for postmenstrual and postcoital hygiene.

The modern detergent douche

TRICHOTINE®

THE FESLER COMPANY, INC. 375 Fairfield Avenue, Stamford, Conn.

OPEN UP THE SINUSES



NEO-VADRIN for Nasosinusitis

Neo-Vadrin is the deep nasal decongestant that restores drainage and ventilation of all eight sinuses by opening up the obstructed ostia.

The therapeutic effect is both prompt and prolonged. Hence Neo-Vadrin is ideal for treatment of deep nasal and sinus congestion due to head colds, hay fever, vasomoter rhinitis, nasal allergy, and sinusitis.

In addition, Neo-Vadrin is antiseptic and locally anesthetic. May be used by patients of all ages. dl-Norephedrine HC1 0.4%; Phenylephrine HC1 0.15%; Chlorobutanol 0.15%; Benzalkonium Chloride 0.005%.

The more prolonged action of dl-norephedrine[1] combined with promptly effective phenylephrine[2] provides a long span of hours for more satisfactory therapeutic response.

Supplied in 1 fld. oz. dropper bottles with special nasal applicator and ¾ oz. plastic spray bottles.

1. Sollmann's Manual of Pharmacology, 8th ed., 1957, p. 507.
2. Modern Drug Encyclopedia, 7th ed., 1958, p. 757.

Samples are available to physicians upon request. Please make your request on your prescription sheet or letterhead.

FIRST TEXAS *Pharmaceuticals, Inc.*

DALLAS **Since 1901** **ATLANTA**



no irritating crystals[1] · uniform concentration in each drop[2]

STERILE OPHTHALMIC SOLUTION

NEO-HYDELTRASOL®

PREDNISOLONE 21-PHOSPHATE-NEOMYCIN SULFATE

2,000 TIMES MORE SOLUBLE THAN PREDNISOLONE OR HYDROCORTISONE

"The solution of prednisolone has the advantage over the suspension in that no crystalline residue is left in the patient's cul-de-sac or in his lashes The other advantage is that the patient does not have to shake the drops and is therefore sure of receiving a consistent dosage in each drop."[2]

1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

supplied: 0.5% Sterile Ophthalmic Solution NEO-HYDELTRASOL (with neomycin sulfate) and 0.5% Sterile Ophthalmic Solution HYDELTRASOL®. In 5 cc. and 2.5 cc. dropper vials. Also available as 0.25% Ophthalmic Ointment NEO-HYDELTRASOL (with neomycin sulfate) and 0.25% Ophthalmic Ointment HYDELTRASOL. In 3.5 Gm. tubes.

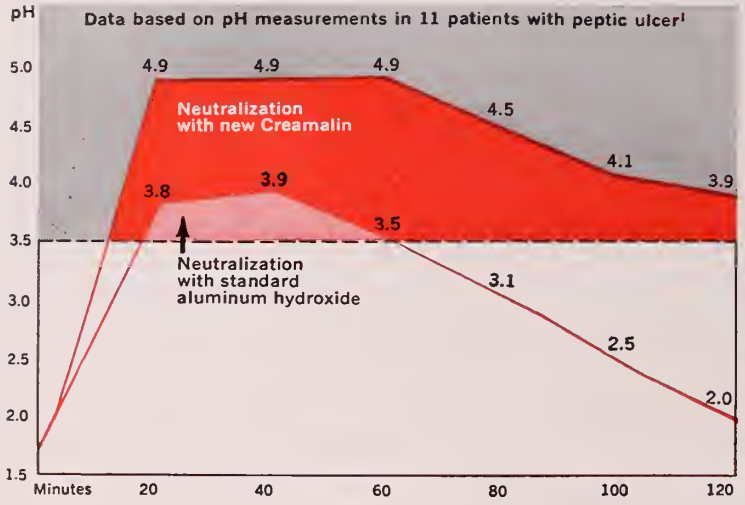
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At the site of peptic ulcer



Following determination of basal secretion, intragastric pH was continuously determined by means of frequent readings over a two-hour period.



neutralization is much faster and twice as long with

New CREAMALIN® ANTACID TABLETS

New proof in vivo[1] of the much greater efficacy of new Creamalin tablets over standard aluminum hydroxide has now been obtained. Results of comparative tests on patients with peptic ulcer, measured by an intragastric pH electrode, show that new Creamalin neutralizes acid from 40 to 65 per cent faster than the standard preparation. This neutralization (pH 3.5 or above) is maintained for approximately one hour longer.

New Creamalin provides virtually the same effects as a liquid antacid[2] with the convenience of a tablet.

Nonconstipating and pleasant-tasting, new Creamalin antacid tablets will not produce "acid rebound" or alkalosis.

Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive, short polymer dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles of the powder offer a vastly increased surface area for quicker and more complete acid neutralization.

Dosage: Gastric hyperacidity — from 2 to 4 tablets as necessary. Peptic ulcer or gastritis — from 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed whole with water or milk, or allowed to dissolve in the mouth. **How supplied:** Bottles of 50, 100, 200 and 1000.

1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:384, July, 1959.

Winthrop LABORATORIES
New York 18, N. Y.

for peptic ulcer ■ gastritis ■ gastric hyperacidity



"Sometimes, when I have a running nose, I'd like to clear it with TRIAMINIC®— just to check out that systemic absorption business.

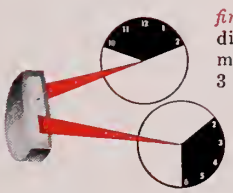
Reaches all nasal and paranasal membranes, huh?"

...and for humans with RUNNING NOSES...

You can't reach the entire nasal and paranasal mucosa by putting medication in a man's nostrils — any more than you could by trying to pour it down an elephant's trunk. TRIAMINIC, by contrast, reaches *all* respiratory membranes *systemically* to provide more effective, longer-lasting relief. And TRIAMINIC avoids topical medication hazards such as ciliary inhibition, rebound congestion, and "nose drop addiction."

Indications: nasal and paranasal congestion, sinusitis, postnasal drip, upper respiratory allergy.

Relief is prompt and prolonged because of this special timed-release action:



first— the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then— the core disintegrates to give 3 to 4 *more* hours of relief

Each Triaminic timed-release Tablet provides:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient.

Each timed-release Triaminic Juvelet® provides:
½ the formulation of the Triaminic Tablet.
Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

Each tsp. (5 ml.) of Triaminic Syrup provides:
¼ the formulation of the Triaminic Tablet.
Dosage (to be administered every 3 or 4 hours):
Adults—1 or 2 tsp.; *Children 6 to 12*—1 tsp.;
Children 1 to 6—½ tsp.; *Children under 1*—¼ tsp.

TRIAMINIC®

timed-release tablets, juvelets, and syrup

STOP *running noses* *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska



taken at bedtime

BONADOXIN®

STOPS MORNING SICKNESS IN 94%

OFTEN WITH JUST ONE TABLET DAILY

by treating the symptom—nausea and vomiting—as well as a possible specific cause—pyridoxine deficiency



each tiny Bonadoxin tablet contains:
Meclizine HCl (25 mg.) for antinauseant action
Pyridoxine HCl (50 mg.) for metabolic replacement.

usual dose: One tablet at bedtime; severe cases may require another tablet on arising.

supply: Bottles of 25 and 100 tablets. Bonadoxin also effectively relieves nausea and vomiting associated with: anesthesia, radiation sickness, Meniere's syndrome, labyrinthitis, and motion sickness. Also useful in postoperative nausea and vomiting.

Bibliography on request.

For infant colic, try Bonadoxin Drops. Each cc. contains: Meclizine 8.33 mg./ Pyridoxine 16.67 mg.

Rexric Rx

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Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being™

and... when your OB patient needs the best in prenatal vitamin-mineral supplementation...
OBRON®



Diagnostic Quandaries

Colitis? Gall Bladder Disease?
Chronic Appendicitis?
Rheumatoid Arthritis? Regional Enteritis?

A DISEASE that is frequently overlooked in solving diagnostic quandaries is amebiasis. Its symptoms are varied and contradictory, and diagnosis is extremely difficult. In one study, 56% of the cases would have been overlooked if the routine three stool specimens had been relied on.[1]

Another study found 96% of a group of 150 patients with rheumatoid arthritis were infected by *E. histolytica*. In 15 of these subjects, nine stool specimens were required to establish the diagnosis.[2]

Webster discovered amebic infection in 147 cases with prior diagnoses of spastic colon, psychoneurosis, gall bladder disease, nervous indigestion, chronic appendicitis, and other diseases. Duration of symptoms varied from one week to over 30 years. In some cases, it took as many as six stool specimens to establish the diagnosis of amebiasis.[3]

Now treatment with Glarubin provides a means of differential diagnosis in suspected cases of amebiasis. Glarubin, a crystalline glycoside obtained from the fruit of *Simarouba glauca*, is a safe, effective amebicide. It contains no arsenic, bismuth, or iodine. Its virtual freedom from toxicity makes it practical to treat suspected cases without undertaking difficult, and frequently undependable, stool analyses. Marked improvement following administration of Glarubin indicates pathologically significant amebic infection.

Glarubin is administered orally in tablet form and does not require strict medical supervision or hospitalization. Extensive clinical trials prove it highly effective in intestinal amebiasis.

Glarubin*

TABLETS

specific for intestinal amebiasis

Supplied in bottles of 40 tablets, each tablet containing 50 mg. of glaucarubin.

Write for descriptive literature, bibliography, and dosage schedules.

1. Cook, J.E., Briggs, G.W., and Hindley, F.W.: Chronic Amebiasis and the Need for a Diagnostic Profile, Am. Pract. and Dig. of Treat. *6*:1821 (Dec., 1955).

2. Rinehart, R.E., and Marcus, H.: Incidence of Amebiasis in Healthy Individuals, Clinic Patients and Those with Rheumatoid Arthritis, Northwest Med., *54*:708 (July, 1955).

3. Webster, B.H.: Amebiasis, a Disease of Multiple Manifestations, Am. Pract. and Dig. of Treat. *9*:897 (June, 1958).

*U.S. Pat. No. 2,864,745

THE S.E. MASSENGILL COMPANY
BRISTOL, TENNESSEE
NEW YORK • KANSAS CITY • SAN FRANCISCO



Just one prescription for **Engran** Term-Pak
SQUIBB VITAMIN-MINERAL SUPPLEMENT *(270 tablets)*
calling for just one tablet per day will carry her through term to the six-week postpartum check-up. Thus, you help to assure a nutritionally perfect pregnancy, while providing the convenience and economy of the re-usable Term-Pak. Engran is also available in bottles of 100 tablets.

SQUIBB *Squibb Quality—The Priceless Ingredient*

'ENGRAN'® AND 'TERM-PAK'® ARE SQUIBB TRADEMARKS

preventable tragedy:

permanent pitting and scarring in acne



in acne vulgaris:

for effective control of the pyogenic organisms

often responsible for permanent pitted and hypertrophic scars[1]

Tetrex® capsules

U. S. PAT. NO. 2,791,609

The Original Tetracycline Phosphate Complex

broad spectrum efficacy with unmatched record of safety and tolerance

Supply: TETREX Capsules—tetracycline phosphate complex—each equivalent to 250 mg. tetracycline HCl activity. Bottles of 16 and 100. Capsules—100 mg.—bottles of 25 and 100. Information on convenient dosage schedule available on request.

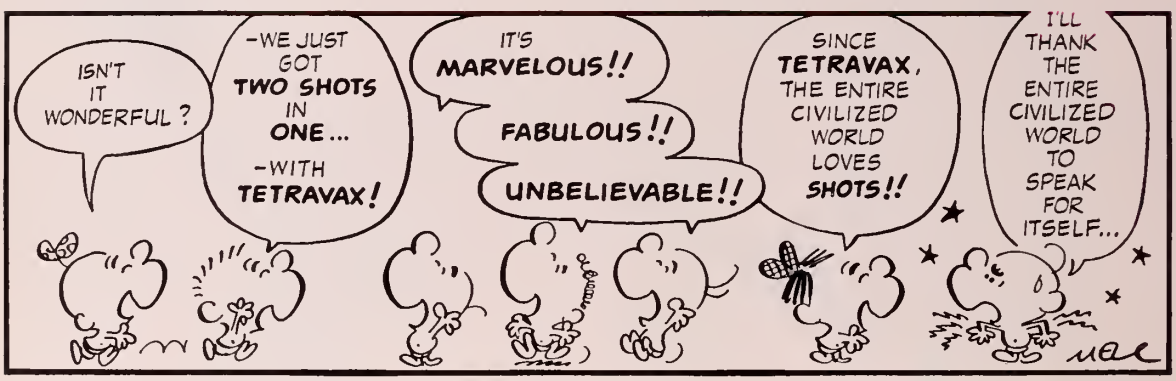
1. Rein, C. R., and Fleischmajer, R.: The efficacy of tetracycline phosphate complex (TETREX) in dermatological therapy. Antibiotic Med. & Clin. Ther. 4:422 (July) 1957.

BRISTOL™ BRISTOL LABORATORIES
SYRACUSE, NEW YORK

FOR SIMULTANEOUS IMMUNIZATION AGAINST 4 DISEASES:

Poliomyelitis-Diphtheria-Pertussis-Tetanus

PEDI-ANTICS



TETRAVAX®

DIPHTHERIA AND TETANUS TOXOIDS WITH PERTUSSIS AND POLIOMYELITIS VACCINES

now you can immunize against more *diseases...with* fewer *injections*

Dose: 1 cc.
Supplied: 9 cc. vials in *clear plastic* cartons. Package circular and material in vial can be examined without damaging carton. Expiration date is on vial for checking even if carton is discarded.



For additional information, write Professional Services, Merck Sharp & Dohme, West Point, Pa.

TETRAVAX IS A TRADEMARK OF MERCK & CO., INC.

MSD MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

Clinical results with Trancopal®

	Excellent	Good	Fair	Poor	Tota
LOW BACK SYNDROMES					
Acute low back strain	25	19	8	6	58
Chronic low back strain	11	5	1	1	18
"Porters' syndrome"*	21	5	1	1	28
Pelvic fractures	2	1	—	—	3
NECK SYNDROMES					
Whiplash injuries	12	6	2	1	21
Torticollis, chronic	6	2	3	2	13
OTHER MUSCLE SPASM					
Spasm related to trauma	15	6	1	—	22
Rheumatoid arthritis	—	18	2	1	21
Bursitis	2	6	1	—	9
TENSION STATES	18	2	4	3	27
TOTALS	112 (51%)	70 (32%)	23 (10%)	15 (7%)	220 (100%

*Over-reaching in lifting heavy bags resulting in sprain of upper, middle, and lower back muscles.

Dosage: **Adults, 200 or 100 mg. orally three or four times daily.**
Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

How Supplied: Trancopal Caplets®
200 mg. (green colored, scored), bottles of 100.
100 mg. (peach colored, scored), bottles of 100.

Winthrop LABORATORIES, New York 18, N. Y.

when sulfa is your plan of therapy...



KYNEX®

Sulfamethoxypyridazine Lederle

OUTSTANDING 1-DOSE-A-DAY SULFA

Rapid peak attainment in 1 to 2 hours[1,2] . . . approximately one-half the time of other single-daily dose sulfas.[2] *High free levels*—as much as 95 per cent of circulating levels remaining in fully active unconjugated forms.[3] *Extremely low 2.7 per cent incidence of side effects* in toxicity studies on 223 patients.[4] Includes *total* reactions (subjective and objective), all temporary and rapidly reversed. No crystalluria reported.

KYNEX TABLETS, 0.5 Gm., bottles of 24 and 100. Dosage: Adults, 0.5 Gm. (1 tablet) daily following an initial first day dose of 1 Gm. (2 tablets).

KYNEX ACETYL PEDIATRIC SUSPENSION, cherry-flavored, 250 mg. sulfamethoxypyridazine activity per tsp. (5 cc.). Bottles of 4 and 16 fl. oz.

New **KYNEX** ACETYL PEDIATRIC DROPS, cherry-flavored, 125 mg. sulfamethoxypyridazine activity per cc. In 10 cc. squeeze bottle.

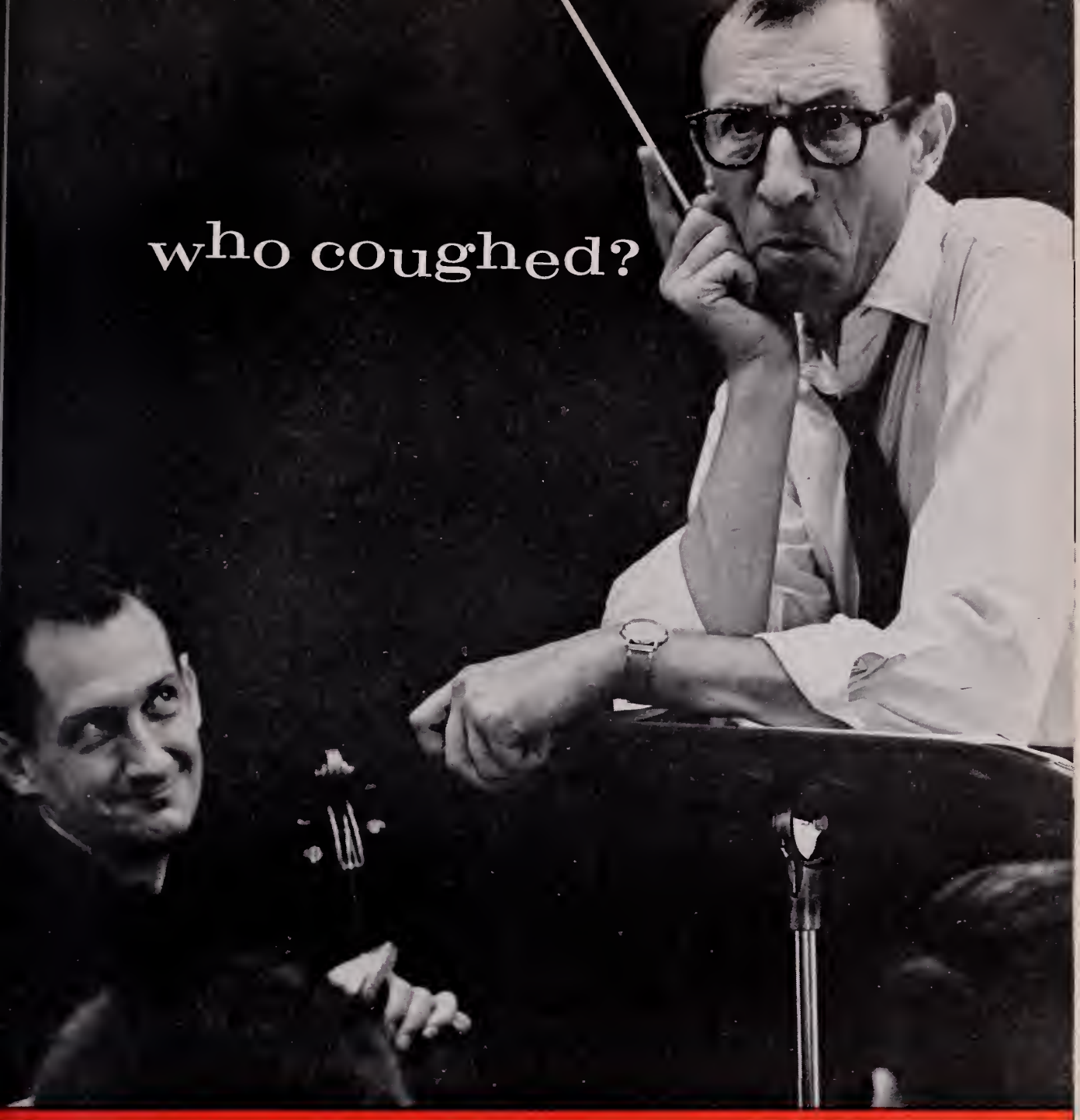
New for acute G. U. infection **AZO KYNEX** TABLETS (for q. i. d. dosage), 125 mg.. **KYNEX** Sulfamethoxypyridazine in the shell with 150 mg. phenylazodiaminopyridine HCl in the core.

Precautions: Usual sulfonamide precautions apply.

1. Boger, W. P.; Strickland, C. S., and Gylfe, J. M.: *Antibiotic Med. & Clin. Ther.* 3:378 (Nov.) 1956. 2. Boger, W. P.: In: *Antibiotics Annual* 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 48. 3. Sheth, U. K.; Kulkarni, B. S., and Kamath, P. G.: *Antibiotic Med. & Clin. Ther.* 5:604 (Oct.) 1958. 4. Anderson, P. C., and Wissinger, H. A.: *U. S. Armed Forces M. J.* 10:1051 (Sept.) 1959.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle



WHENEVER COUGH THERAPY IS INDICATED

HYCOMINE® Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / antihistamine decongestant / expectorant

■ relieves cough and associated symptoms in 15-20 minutes ■ effective for 6 hours or longer ■ promotes expectoration ■ rarely constipates ■ agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE* Syrup contains:

Hycodan®		
Dihydrocodeinone Bitartrate	5 mg.	6.5 mg.
(Warning: May be habit-forming)		
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Phenylephrine Hydrochloride		10 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. Federal law permits oral prescription.

Literature on request

ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,630,400



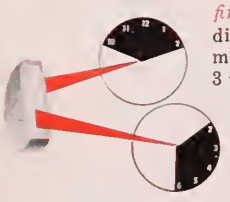
"I wouldn't be hooting all night if I were able to get my beak on some TRIAMINIC® to clear up my stuffed sinuses."

...and for humans with STUFFED-UP SINUSES...

Your patient with sinus congestion doesn't give a hoot about anything but prompt relief. And TRIAMINIC has a pharmacologically balanced formula designed to give him just that. As soon as he swallows the tablet, the medication is transported *systemically* to *all* nasal and paranasal membranes – reaching inaccessible sinus cavities where drops and sprays can never penetrate. TRIAMINIC thereby brings more complete, more effective relief without hazards of topical therapy, such as ciliary inhibition, rebound congestion, and "nose drop addiction."

Indications: nasal and paranasal congestion, sinusitis, postnasal drip, upper respiratory allergy.

Relief is prompt and prolonged because of this special timed-release action:



first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then—the core disintegrates to give 3 to 4 *more* hours of relief

Each Triaminic timed-release Tablet provides:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient.

Each timed-release Triaminic Juvelet® provides:

½ the formulation of the Triaminic Tablet.

Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

Each tsp. (5 ml.) of Triaminic Syrup provides:

¼ the formulation of the Triaminic Tablet.

Dosage (to be administered every 3 or 4 hours):

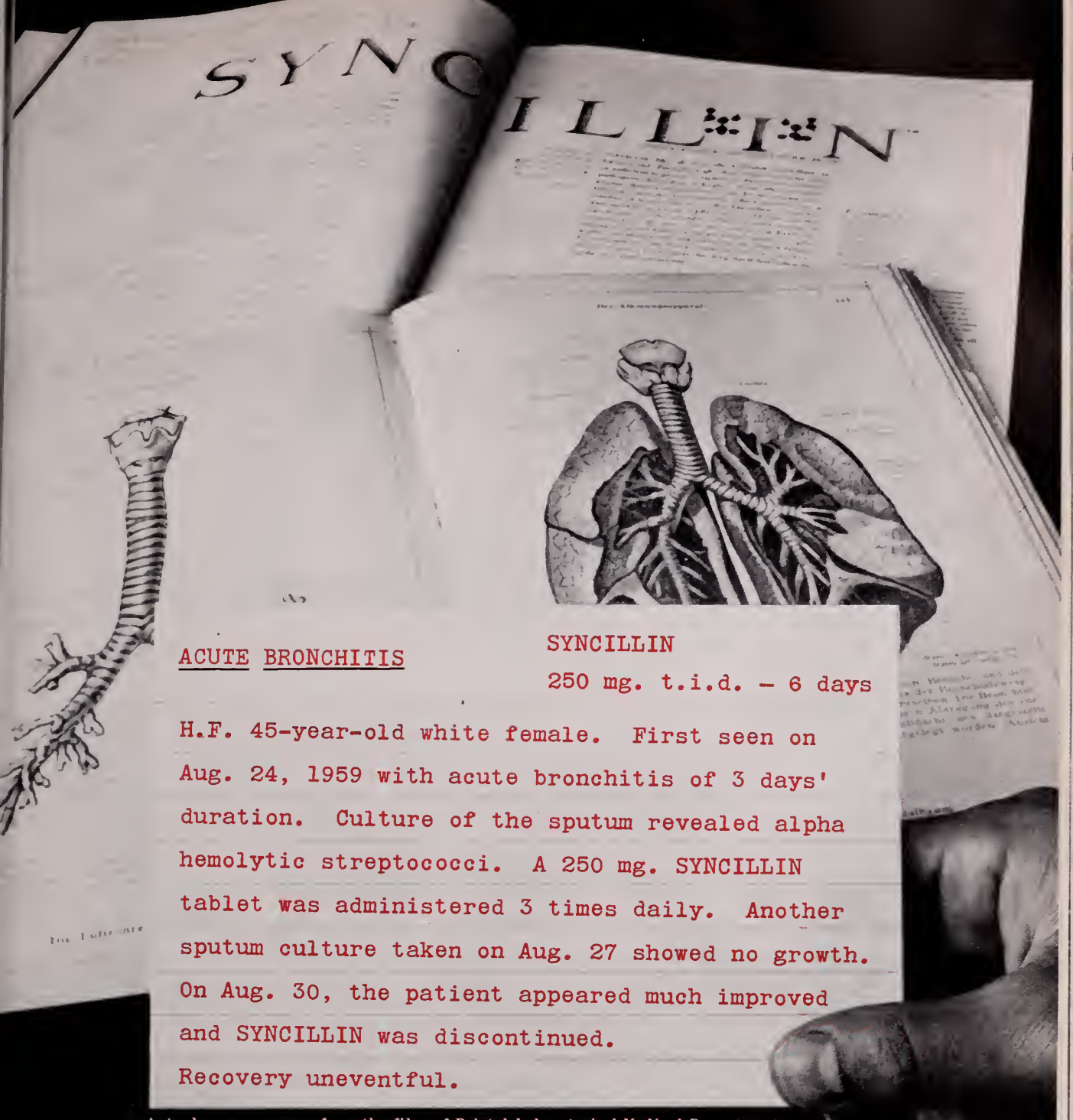
Adults—1 or 2 tsp.; *Children 6 to 12*—1 tsp.; *Children 1 to 6*—½ tsp.; *Children under 1*—¼ tsp.

TRIAMINIC®

timed-release tablets, juvelets, and syrup

STOP *running noses* *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska



ACUTE BRONCHITIS

SYNCILLIN
250 mg. t.i.d. – 6 days

H.F. 45-year-old white female. First seen on Aug. 24, 1959 with acute bronchitis of 3 days' duration. Culture of the sputum revealed alpha hemolytic streptococci. A 250 mg. SYNCILLIN tablet was administered 3 times daily. Another sputum culture taken on Aug. 27 showed no growth. On Aug. 30, the patient appeared much improved and SYNCILLIN was discontinued. Recovery uneventful.

Actual case summary from the files of Bristol Laboratories' Medical Department

THE ORIGINAL potassium phenethicillin

SYNCILLIN®

(Potassium Penicillin-152)

A dosage form to meet the individual requirements of patients of all ages in home, office, clinic, and hospital:

Syncillin Tablets – 250 mg. (400,000 units)... Syncillin Tablets – 125 mg. (200,000 units)
Syncillin for Oral Solution – 60 ml. bottles – when reconstituted, 125 mg. (200,000 units) per 5 ml.
Syncillin Pediatric Drops – 1.5 Gm. bottles. Calibrated dropper delivers 125 mg. (200,000 units)

Complete information on indications, dosage and precautions is included in the circular accompanying each package.

BRISTOL LABORATORIES, SYRACUSE, NEW YORK BRISTOL™

Each of the babies pictured on this page was borne by a mother with a *documented* previous history of true habitual abortion, who was treated with DELALUTIN during the pregnancy leading to this birth

LIVING PROOF OF FETAL SALVAGE WITH

DELALUTIN

SQUIBB HYDROXYPROGESTERONE CAPROATE

Improved Progestational Therapy



Garden City, N. Y.



Lincolnwood, Ill.



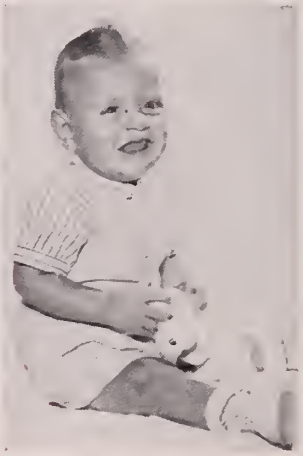
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DELALUTIN offers these advantages over other progestational agents

• long-acting sustained therapy • more effective in producing and maintaining a completely matured secretory endometrium • no androgenic effect • more concentrated solution requiring injection of less vehicle • unusually well-tolerated, even in large doses • fewer injections required • low viscosity makes administration easy

Complete information on administration and dosage is supplied in the package insert

Supply:
Vials of 2 and 10 cc., each containing 125 mg. of hydroxyprogesterone caproate in benzyl benzoate and sesame oil.

Also available: DELALUTIN 2X in 5 cc. multiple-dose vials. Each cc. contains 250 mg. hydroxyprogesterone caproate in castor oil, preserved with benzyl alcohol.

SQUIBB *Squibb Quality—The Priceless Ingredient*

"DELALUTIN"® IS A SQUIBB TRADEMARK

in common Gram-positive infections due to susceptible organisms

YOU CAN COUNT ON

TAO®

(triacetyloleandomycin)

even in many resistant Staph*



1,928 published cases in the two years since TAO was released for general use show:

94.3% effectiveness in respiratory infections (617 cases including tonsillitis, staphylococcal and streptococcal pharyngitis, bronchitis, infectious asthma, broncho-pneumonia, lobar pneumonia, bronchiectasis, lung abscess, otitis.) **You can count on TAO.**

92% effectiveness in skin and soft tissue infections (900 cases including pyoderma, impetigo, acne, infected skin disorders, wounds, incisions and burns, furunculosis, abscess, cellulitis, chronic ulcer, adenitis.) **You can count on TAO.**

87.1% effectiveness in genitourinary infections (349 cases including urethritis, cystitis, pyelitis, pyelonephritis, orchitis, pelvic inflammation, acute gonococcal urethritis, lymphogranuloma venereum.) **You can count on TAO.**

75.8% effectiveness in diverse infections (62 cases including fever of undetermined origin, peritoneal abscess, osteitis, periarthritis, septic arthritis, staphylococcal enterocolitis, gastroenteritis, carriers of staphylococci.) **You can count on TAO.**

95.6% of 1,928 cases free of side effects—in the remaining 4.4%, reactions were chiefly mild gastrointestinal disturbances which seldom necessitated discontinuance of therapy.

*In 884 of 1,928 cases the causative organisms were mostly staphylococci. The majority of clinical isolates were found to be resistant to at least one of the commonly used antibiotics and many patients had failed to respond to previous therapy with one or more antibiotics. **TAO proved 93.4% effective in these 884 cases.**

Complete bibliography available on request.

DOSAGE: varies according to severity of infection. Usual adult dose—250 to 500 mg. q.i.d. Usual pediatric dose: 3-5 mg./lb. body weight every 6 hours.

NOTE: In some children, when TAO was administered at considerably higher than therapeutic levels for extended periods, transient-jaundice and other indications of liver dysfunction have been noted. A rapid and complete return to normal occurred when TAO was withdrawn.

SUPPLY: TAO CAPSULES—250 mg. and 125 mg., bottles of 60. TAO ORAL SUSPENSION—125 mg. per 5 cc. when reconstituted, palatable cherry flavor, 60 cc. bottles. TAO PEDIATRIC DROPS—100 mg. per cc. when reconstituted, flavorful; special calibrated dropper, 10 cc. bottles. INTRAMUSCULAR or INTRAVENOUS—10 cc. vials, as oleandomycin phosphate.

OTHER TAO FORMULATIONS ALSO AVAILABLE: TAO®-AC (Tao, analgesic, antihistaminic compound) capsules, bottles of 36. TAOMID® (Tao with Triple Sulfas)—tablets, bottles of 60. Oral Suspension—60 cc. bottles.

For nutritional support VITERRA® Vitamins and Minerals

Formulated from Pfizer's line of fine pharmaceutical products.

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Science for the World's Well-Being™

Now —All cold symptoms can be controlled



Tussagesic

timed-release tablets

Controls congestion
with Triaminic,[1,2,3] the leading oral nasal decongestant.

Controls aches and fever
with well-tolerated APAP, non-addictive analgetic[4] and excellent antipyretic.[5]

Each TUSSAGESIC Tablet provides:

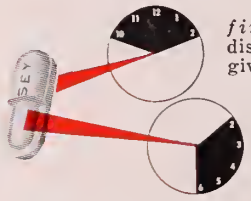
TRIAMINIC® 50 mg.
(phenylpropanolamine HCl 25 mg.
pheniramine maleate 12.5 mg.
pyrilamine maleate 12.5 mg.)
Dormethan
(brand of dextromethorphan HBr)..... 30 mg.
Terpin hydrate 180 mg.
APAP (N-acetyl-p-aminophenol) 325 mg.

References: 1. Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958. 4. Bonica, J. J.: in Drugs of Choice, Mosby, St. Louis, 1958, p. 272. 5. Dascomb, H. E.: in Current Therapy, Saunders, Phila., 1958, p.78. 6. Bickerman, H. A.: in Drugs of Choice, Mosby, St. Louis, 1958, p.547.

Controls cough centrally
with non-narcotic Dormethan, possessing "amply demonstrated" antitussive activity,[6] as effective as codeine.

Liquefies tenacious mucus
with terpin hydrate, classic expectorant.

Prompt and prolonged relief because of this special "timed release" design:



first — the outer layer dissolves within minutes to give 3 to 4 hours of relief

then — the inner core releases its ingredients to sustain relief for 3 to 4 more hours

Dosage: One tablet in the morning, midafternoon and at bedtime. Pediatric dosage chart for Tussagesic Suspension available on request.

TUSSAGESIC SUSPENSION provides palatability and convenience which make it especially attractive to children and other patients who prefer liquid medication.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska



Use of pHisoHex for washing the skin augments any other therapy for acne — brings better results. Now, pHisoAc Cream, a new acne remedy for topical application, suppresses and masks lesions — dries, peels and degerms the skin. Together, pHisoHex and pHisoAc provide **basic** complementary topical therapy for acne.

pHisoHex, antibacterial detergent with 3 per cent hexachlorophene, removes soil and oil better than soap — provides **continuous** degerming action when used often. pHisoHex is nonalkaline, nonirritating and hypoallergenic.

When pHisoAc Cream is used with pHisoHex washings, it unplugs follicles, helps prevent development of comedones, pustules and scarring. New pHisoAc Cream is flesh-toned, not greasy. It contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent, and hexachlorophene 0.3 per cent in a specially prepared base. pHisoAc is pleasant to use.

A new "self-help" booklet, **Teen-aged? Have acne? Feel lonely?,** gives important **psychologic first aid** for patients with acne and describes the proper use of pHisoHex and pHisoAc. Ask your Winthrop representative for copies.

pHisoAc is available in 1½ oz. tubes and pHisoHex is available in 5 oz. plastic squeeze bottles and in bottles of 16 oz.

pHisoHex® and pHisoAc for acne

trademark

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LABORATORIES
New York 18, N. Y.


alert tranquillity

a new, improved, more potent relaxant for anxiety and tension

- effective in half the dosage required with meprobamate
- much less drowsiness than with meprobamate, phenothiazines, or the psychosedatives
- does not impair intellect, skilled performance, or normal behavior
- neither depression nor significant toxicity has been reported



alert tranquillity

Striatran®

EMYLCAMATE

- a familiar spectrum of antianxiety and muscle-relaxant activity
- no new or unusual effects—such as ataxia or excessive weight gain
- may be used in full therapeutic dosage even in geriatric or debilitated patients
- no cumulative effect
- simple, uncomplicated dosage, providing a wide margin of safety for office use

STRIATRAN is indicated in anxiety and tension, occurring alone or in association with a variety of clinical conditions.

Adult Dosage: One tablet three times daily, preferably just before meals. In insomnia due to emotional tension, an additional tablet at bedtime usually affords sufficient relaxation to permit natural sleep.

Supply: 200 mg. tablets, coated pink, bottles of 100.

While no absolute contraindications have been found for Striatran in full recommended dosage, the usual precautions and observations for new drugs are advised.

For additional information, write Professional Services, Merck Sharp & Dohme, West Point, Pa.

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STRIATRAN IS A TRADEMARK OF MERCK & CO., INC.

A. H. Robins' new Adabee — for the physician who has weighed the . . .

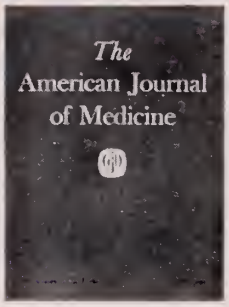
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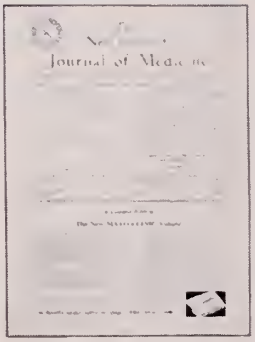
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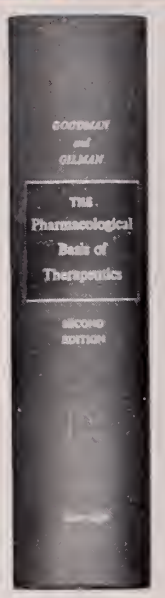
B_{12} AND FOLIC ACID

IN MULTI-VITAMINS









Individually, folic acid and B_{12} fill important clinical roles.[1] But, increasing evidence indicates that multivitamins containing folic acid may obscure the diagnosis of pernicious anemia.[2-7] And vitamin B_{12}, in indiscriminate and unnecessary usage[5-8] is likewise blamed for this diagnostic confusion.[7]

Both folic acid and B_{12} have been omitted from Adabee, in recognition of this growing medical concern. Also excluded are other factors which might interfere with concurrent therapy, such as, hormones, enzymes, amino acids, and yeast derivatives. Adabee supplies massive doses of therapeutically practical vitamins for use in both specific and supportive schedules in illness and stress situations. Thus, new Adabee offers the therapeutic advantage of sustained maximum multivitamin support without the threat of symptom-masking.

references: 1. Wintrobe, M. M., *Clinical Hematology*, 3rd ed., Phila., Lea & Febiger, 1952, p. 398. 2. Goodman, L. S. and Gilman, A., *The Pharmacological Basis of Therapeutics*, 2nd. ed., New York, Macmillan, 1955, p. 1709. 3. New Eng. J.M., Vol. 259, No. 25, Dec. 18, 1958, p. 1231. 4. Frohlich, E. D., New Eng. J.M., 259:1221, 1958. 5. J.A.M.A., 169:41, 1959. 6. J.A.M.A., 173:240, 1960. 7. Goldsmith, G. A., American J. of M., 25:680, 1958. 8. Darby, W. J., American J. of M., 25:726, 1958.

ADABEE®

Each yellow, capsule-shaped tablet contains:

Vitamin A	25,000 USP units
Vitamin D	1,000 USP units
Thiamine mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Nicotinamide (niacinamide)	50 mg.
Calcium pantothenate	10 mg.
Ascorbic acid (vitamin C)	250 mg.

ADABEE® M

Each green, capsule-shaped tablet contains Adabee plus nine essential minerals:

Iron	15.0 mg.	Zinc	1.5 mg.
Iodine	0.15 mg.	Potassium	5.0 mg.
Copper	1.0 mg.	Calcium	103.0 mg.
Manganese	1.0 mg.	Phosphorus	80.0 mg.
Magnesium	6.0 mg.		

indications: As dietary supplements for the deficiency states that accompany pregnancy and lactation, surgery, burns, trauma, alcohol ingestion, hyperthyroidism, infections, cardiac disease, polyuria, anorexia, cirrhosis, arthritis, colitis, diabetes mellitus, and degenerative diseases. Also in restricted diets, particularly peptic ulcer, in geriatrics, and in concurrent administration with diuretics and antibiotics.

dosage: One or more tablets a day, as indicated, preferably with meals.

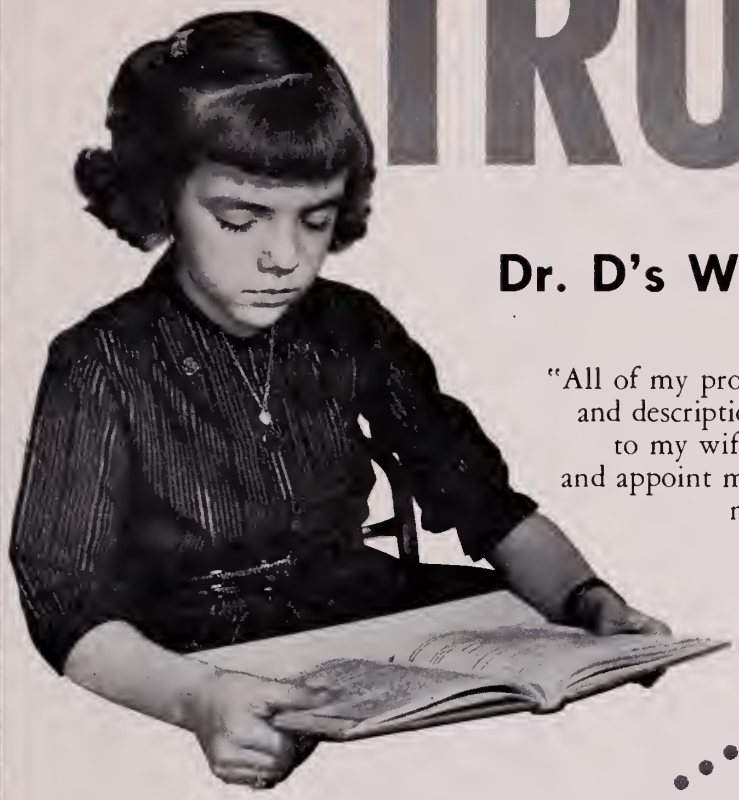
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the multivitamin without B_{12} or folic acid

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TRUSTS



Dr. D's Will said this . . .

"All of my property of every kind, character and description I give, devise and bequeath to my wife, Jane. I nominate, constitute and appoint my wife, Jane, executrix of this my Last Will and Testament."

But this is what it really meant:

ITEM 1.

To my wife, Jane, I bequeath all of my property, together with the risks and responsibilities of its management. I bequeath her worry for the remainder of her life. I bequeath her financial insecurity, although my estate is ample to care for her.

ITEM 2.

To my daughter, Mary, I bequeath a Mother who will have many added worries and responsibilities. To my daughter, I further bequeath an estate shrunken by unnecessary taxation.

By allowing the Trust Department of the First National Bank to handle your estate, you can safeguard it against the mistakes of inexperience and unnecessary taxation. At the First, you will find one of the Southwest's most experienced Trust Departments. You and your attorney, who should draw your will and advise you on legal matters, are invited to visit our Trust Department at your convenience.



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NATIONAL BANK AND TRUST COMPANY
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for a smooth downward curve

New Rautrax-N results in prompt lowering of blood pressure.[1] Rautrax-N, a new and carefully developed antihypertensive-diuretic preparation, provides improved therapeutic action[1] plus enhanced diuretic safety for all degrees of essential hypertension. A combination of Raudixin and Naturetin, Rautrax-N facilitates the management of hypertension when rauwolfia alone proves inadequate, or when prolonged treatment, with or without associated edema, is indicated.

Naturetin, the diuretic of choice, also possesses marked antihypertensive properties, thus complementing the known antihypertensive action of Raudixin. In this way a lower dose of each component in Rautrax-N controls hypertension effectively with few side effects and greater margin of safety. [1-16]

Other advantages are a balanced electrolyte pattern[1-16] and the maintenance of a favorable urinary sodium-potassium excretion ratio.[2-16] Clinical studies[1-5] have shown that the diuretic component of Rautrax-N—Naturetin—has only a slight effect on serum potassium. The supplemental potassium chloride provides additional protection against potassium depletion which may occur during long term therapy.

Rautrax-N may be used alone or in conjunction with other antihypertensive drugs, such as ganglionic blocking agents, veratrum or hydralazine, when such regimens are needed in the occasionally difficult patient.

Supply: Rautrax-N—capsule-shaped tablets providing 50 mg. Raudixin (Squibb Rauwolfia Serpentina Whole Root) and 4 mg. Naturetin (Squibb Benzydroflumethiazide), with 400 mg. potassium chloride.

Dosage: Initially-1 to 4 tablets daily after meals. Maintenance-1 or 2 tablets daily after meals; maintenance dosage may range from 1 to 4 tablets daily. For complete instructions and precautions see package insert. Literature available on request.





References: 1. Reports to the Squibb Institute, 1960. 2. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 3. Stenberg, E. S., Jr.; Benedetti, A., and Forsham, P. H.: Op. cit. 5:46 (Feb.) 1960. 4. Fuchs, M.; Moyer, J. H., and Newman, B. E.: Op. cit. 5:55 (Feb.) 1960. 5. Marriott, H. J. L., and Schamroth, L.: Op. cit. 5:14 (Feb.) 1960. 6. Ira, G. H., Jr.; Shaw, D. M., and Bogdonoff, M. D.: North Carolina M. J. 21:19 (Jan.) 1960. 7. Cohen, B. M.: M. Times, to be published. 8. Breneman, G. M. and Keyes, J. W.: Henry Ford Hosp. M. Bull. 7:281 (Dec.) 1959. 9. Forsham, P. H.: Squibb Clin. Res. Notes 2:5 (Dec.) 1959. 10. Larson, E.: Op. cit. 2:10 (Dec.) 1959. 11. Kirkendall, W. M.: Op. cit. 2:11 (Dec.) 1959. 12. Yu, P. N.: Op. cit. 2:12 (Dec.) 1959. 13. Weiss, S.; Weiss, J., and Weiss, B.: Op. cit. 2:13 (Dec.) 1959. 14. Moser, M.: Op. cit. 2:13 (Dec.) 1959. 15. Kahn, A., and Grenblatt, I. J.: Op. cit. 2:15 (Dec.) 1959. 16. Grollman, A.: Monographs on Therapy 5:1 (Feb.) 1960.

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"RAUDIXIN"® "RAUTRAX"® AND "NATURETIN" ARE SQUIBB TRADEMARKS.

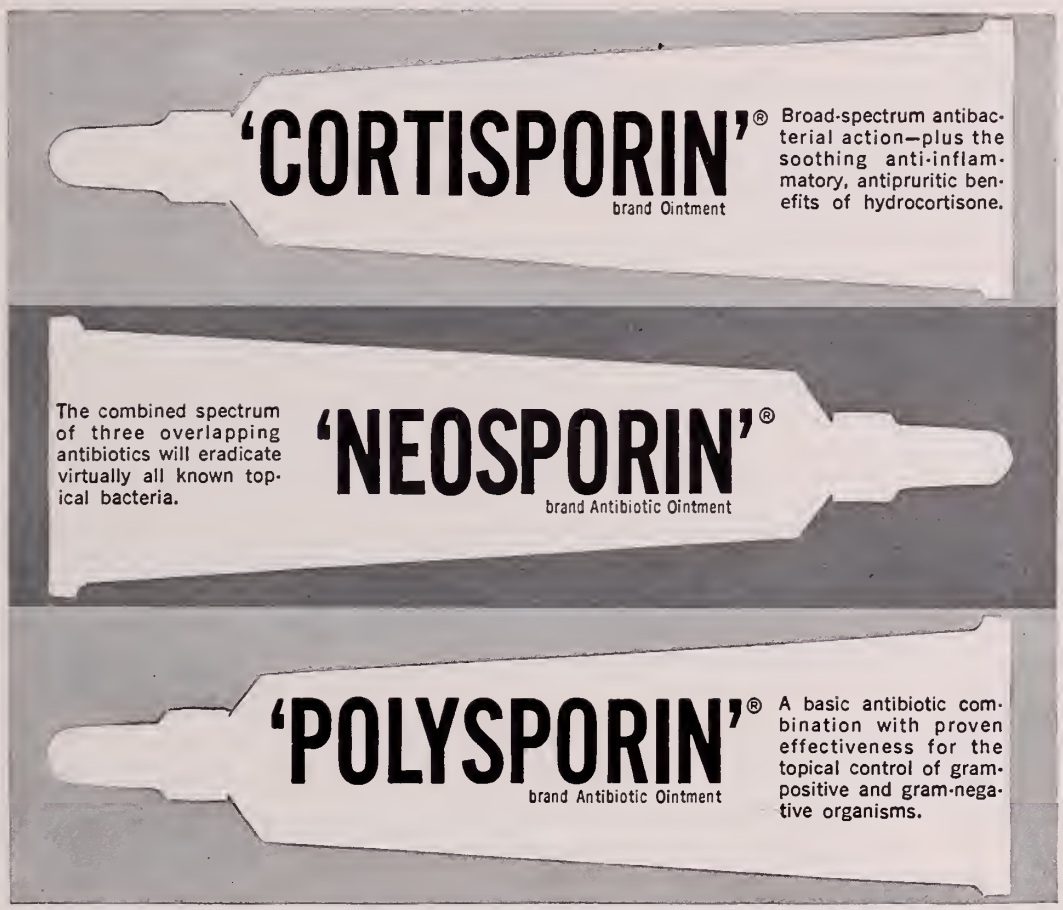
new

The proved, effective antihypertensive—now combined with a safer, better diuretic

RAUTRAX-N*

Squibb Standardized Whole Root Rauwolfia Serpentina (Raudixin) and Benzydroflumethiazide (*Naturetin) with Potassium Chloride

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

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In over five years

Proven
in more than 750 published clinical studies

Effective
for relief of anxiety and tension

Outstandingly Safe

1. simple dosage schedule produces rapid, reliable tranquilization without unpredictable excitation
2. no cumulative effects, thus no need for difficult dosage readjustments
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Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets.
Also as MEPROTABS* — 400 mg. *unmarked*, coated tablets; and as MEPROSPAN® — 400 mg. and 200 mg. *continuous release* capsules.

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stiffness and pain

"gratifying" *relief from stiffness and pain in 106-patient controlled study (as reported in J.A.M.A., April 30, 1960)*

"Particularly gratifying was the drug's [SOMA's] ability to relax muscular spasm, relieve pain, and restore normal movement . . . Its prompt action, ability to provide objective and subjective assistance, and freedom from undesirable effects recommend it for use as a muscle relaxant and analgesic drug of great benefit in the conservative management of the 'low back syndrome'."

Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

FASTER IMPROVEMENT—79% complete or marked improvement in 7 days (Kestler)

EASY TO USE—Usual adult dose is one 350 mg. tablet three times daily and at bedtime.

SUPPLIED: 350 mg., white tablets, bottles of 50.
For pediatric use, 250 mg., orange capsules, bottles of 50.

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Doctors, too, like "Premarin"®

THE doctor's room in the hospital is used for a variety of reasons. Most any morning, you will find the internist talking with the surgeon, the resident discussing a case with the gynecologist, or the pediatrician in for a cigarette. It's sort of a club, this room, and it's a good place to get the low-down on "Premarin" therapy.

If you listen, you'll learn not only that doctors like "Premarin," but *why* they like it.

The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them — it replaces what the patient lacks — natural estrogen. Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms due to estrogen deficiency, "Premarin" takes care of that, too.

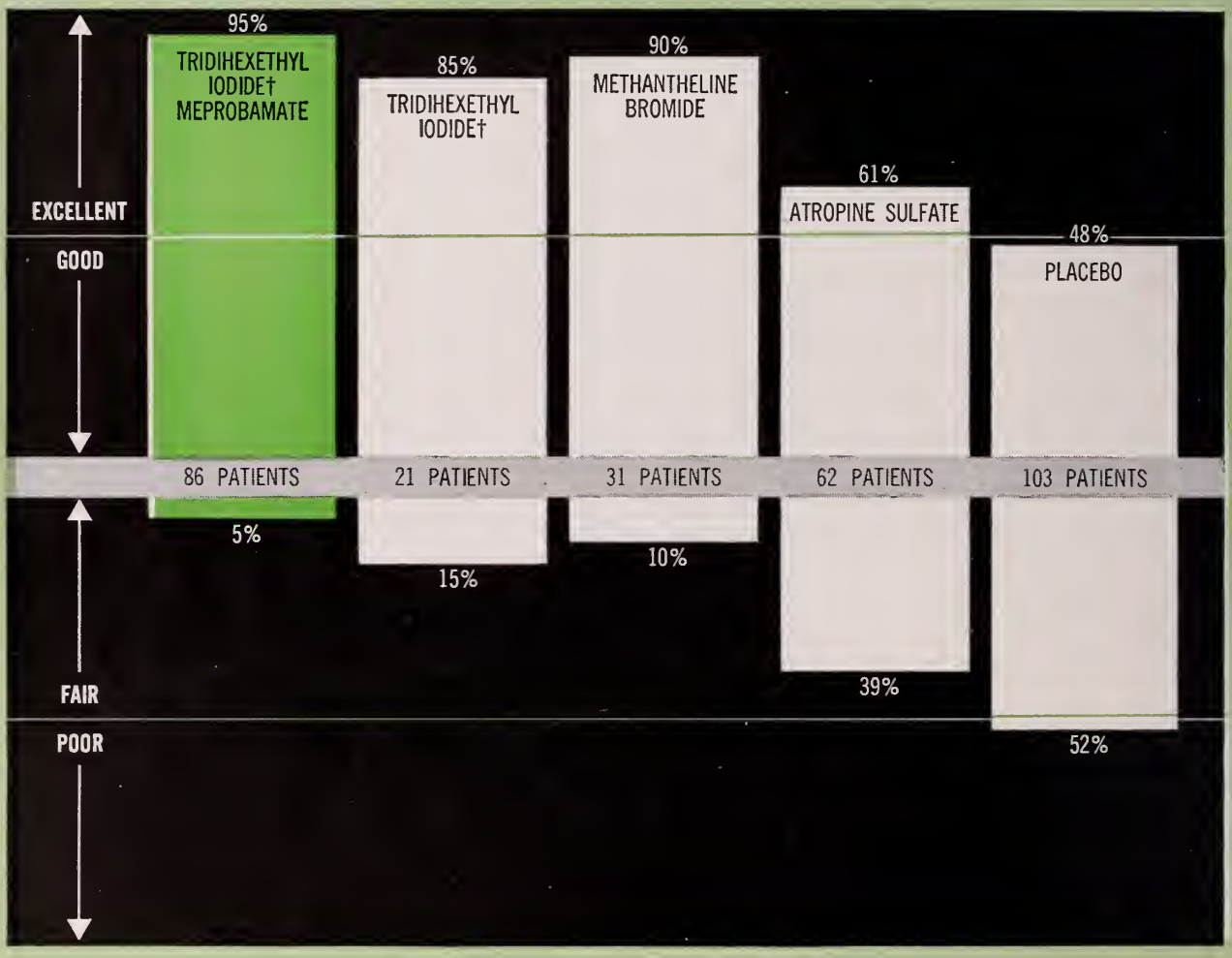
"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

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clinically proven efficacy.

in relieving tension . . . curbing hypermotility and excessive secretion in G. I. disorders



PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

Meprobamate—widely accepted tranquilizer

and

PATHILON tridihexethyl chloride—anticholinergic noted for its effect on motility and gastrointestinal secretion with few unwanted side effects.

Contraindications: glaucoma, pyloric obstruction, and obstruction of the urinary bladder neck.

Two available dosage strengths permit adjusting therapy to the G.I. disorder and degree of associated tension.

Where a minimal meprobamate effect is preferred . . .

PATHIBAMATE-200 Tablets: 200 mg. of meprobamate; 25 mg. of PATHILON

Where a full meprobamate effect is preferred . . .

PATHIBAMATE-400 Tablets: 400 mg. of meprobamate; 25 mg. of PATHILON

Dosage: Average oral adult dose is 1 tablet t.i.d. at mealtime and 2 tablets at bedtime.

Pathibamate® 400 200

meprobamate with PATHILON® tridihexethyl chloride Lederle

clinically proven safety

The efficacy of **PATHIBAMATE** has been confirmed clinically in **duodenal ulcer, gastric ulcer, intestinal colic, spastic and irritable colon, ileitis, esophageal spasm, anxiety neurosis** with gastrointestinal symptoms, and **gastric hypermotility.**

Pictured are the results obtained with the PATHILON (tridihexethyl iodide)–meprobamate combination† in a double-blind study of 303 ulcer patients, extending over a period of 36 months.* They clearly demonstrate the efficacy of **PATHIBAMATE** in controlling the symptoms.

SIDE EFFECTS	TRIDIHEXETHYL IODIDE† MEPROBAMATE	TRIDIHEXETHYL IODIDE†	METHANTHELINE BROMIDE	ATROPINE SULFATE	PLACEBO
DRY MOUTH	1%	5%	72%	46%	5%
STOMATITIS	1%	0%	28%	14%	0%
VISUAL DISTURBANCES	0%	0%	50%	34%	1%
URINARY RETENTION	0%	0%	18%	11%	1%
DROWSINESS	20%	0%	0%	0%	0%
COMPLICATIONS OR SURGERY					
HEMORRHAGE	0%	9%	3%	9%	10%
PERFORATION	0%	0%	0%	6%	0%
OPERATION	0%	5%	5%	14%	2%
RECURRENCES					
NONE	28%	23%	25%	17%	26%
FEWER AND MILDER	67%	62%	52%	37%	24%
SAME OR MORE	5%	15%	23%	46%	50%

*Atwater, J. S., and Carson, J. M.: Therapeutic Principles in Management of Peptic Ulcer. **Am. J. Digest. Dis.** 4:1055 (Dec.) 1959.

†PATHILON is now supplied as tridihexethyl chloride instead of the iodide, an advantage permitting wider use, since the latter could distort the results of certain thyroid function tests.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

control the tension — treat the trauma

IN CONTRACEPTION...



PHOTOGRAPH: HUMAN SPERMATOZOA 400X. HEMOCYTOMETER DIFFUSION TEST.

WHY IS DIFFUSION IMPORTANT?

Because the active ingredients of a spermicidal preparation must diffuse rapidly into the seminal clot and throughout the vaginal canal to be clinically effective. Lanesta Gel offers this *dual* protection. Its four spermicidal agents quickly invade the clot to stop the main body of sperm. It spreads evenly and quickly throughout the vaginal canal—seeks out every wrinkle and fold that may offer concealment to sperm. With this rapid diffusion, your patient receives full benefit of the swift spermicidal action of Lanesta Gel — in minutes — a decisive measure in conception control.

In Lanesta Gel 7-*chloro-4-indanol,* a new, effective, nonirritating, nonallergenic spermicide, produces immediate immobilization of spermatozoa in dilution of up to 1:4,000. The addition of 10 per cent NaCl in ionic form greatly accelerates spermicidal action. Ricinoleic acid facilitates rapid inactivation and immobilization of spermatozoa and sodium lauryl sulfate acts as a dispersing agent and spermicidal detergent.

Lanesta Gel with a diaphragm provides one of the most effective means of conception control. However, whether used with or without a diaphragm, the patient and you, doctor, can be certain that Lanesta Gel provides faster spermicidal action — plus essential diffusion and retention of the spermicidal agents in a position where they can act upon the spermatozoa.

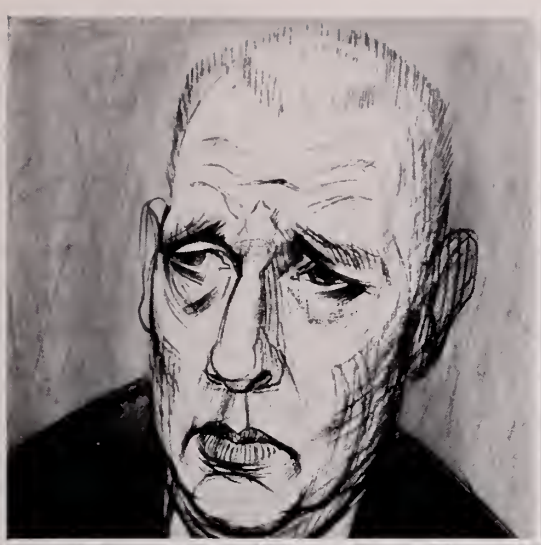


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whenever depression complicates the picture

Tofrānil®
brand of imipramine HCl



hastens recovery

Geigy

In many seemingly mild physical disorders an element of depression plays an insidious etiologic or complicating role.

Because of its efficacy as an antidepressant, coupled with its simplicity of usage, Tofrānil is admirably adapted to use in the home or office in these milder "depression-complicated" cases.

It is always wise to recognize that depression may be an underlying factor... that Tofrānil may speed recovery in "hypochondriasis"; in convalescence when recovery is inexplicably prolonged; in chronic illness with dejection; in the menopausal patient whose emotional disturbances resist hormone therapy; and in many other comparable situations in which latent depression may play a part.

Detailed Literature Available on Request.

Tofrānil®, brand of imipramine hydrochloride, tablets of 25 mg. Ampuls for intramuscular administration, 25 mg. in 2 cc. of solution.

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160-60



senile anxiety
disorientation
agitation
hostility
irritability
apprehension
hysteria
insomnia
chronic urticaria
alcoholism
menopausal syndrome
neuro-dermatoses
functional gastrointestinal disorders
psychoneuroses
tension headaches
dysmenorrhea
psychosomatic complaints
situational stress
asthma
hyperactivity
tics
preoperative anxiety
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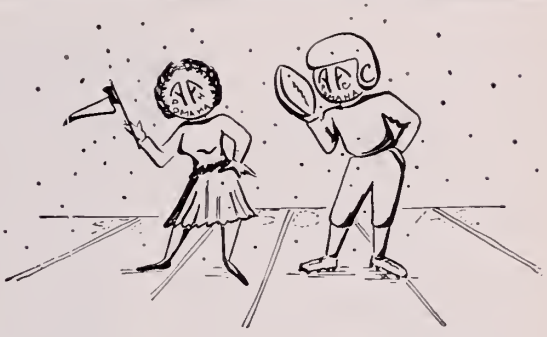
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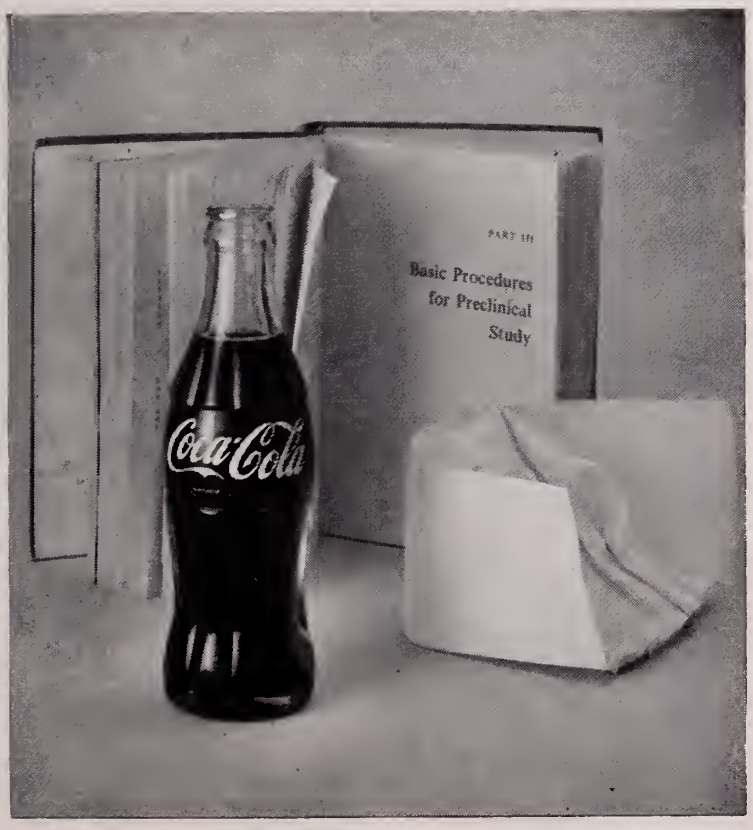
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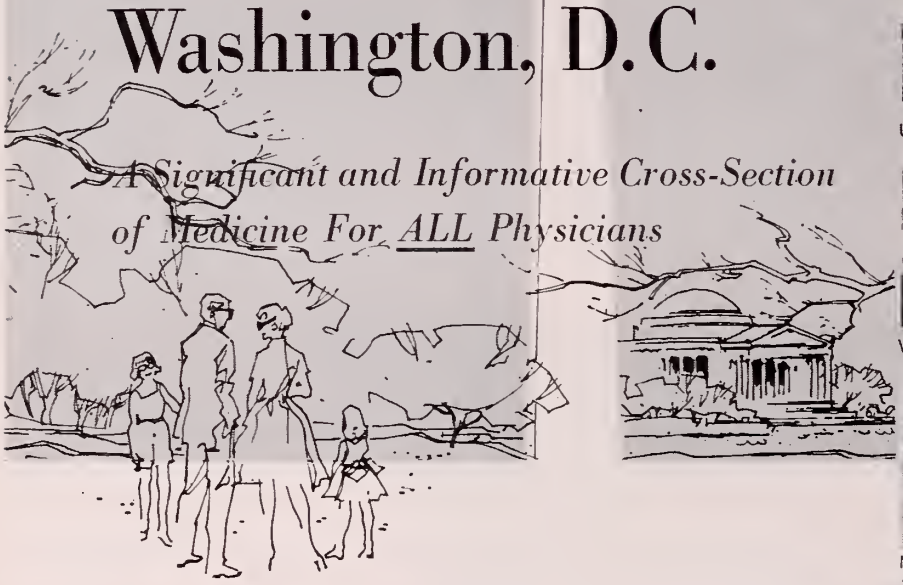
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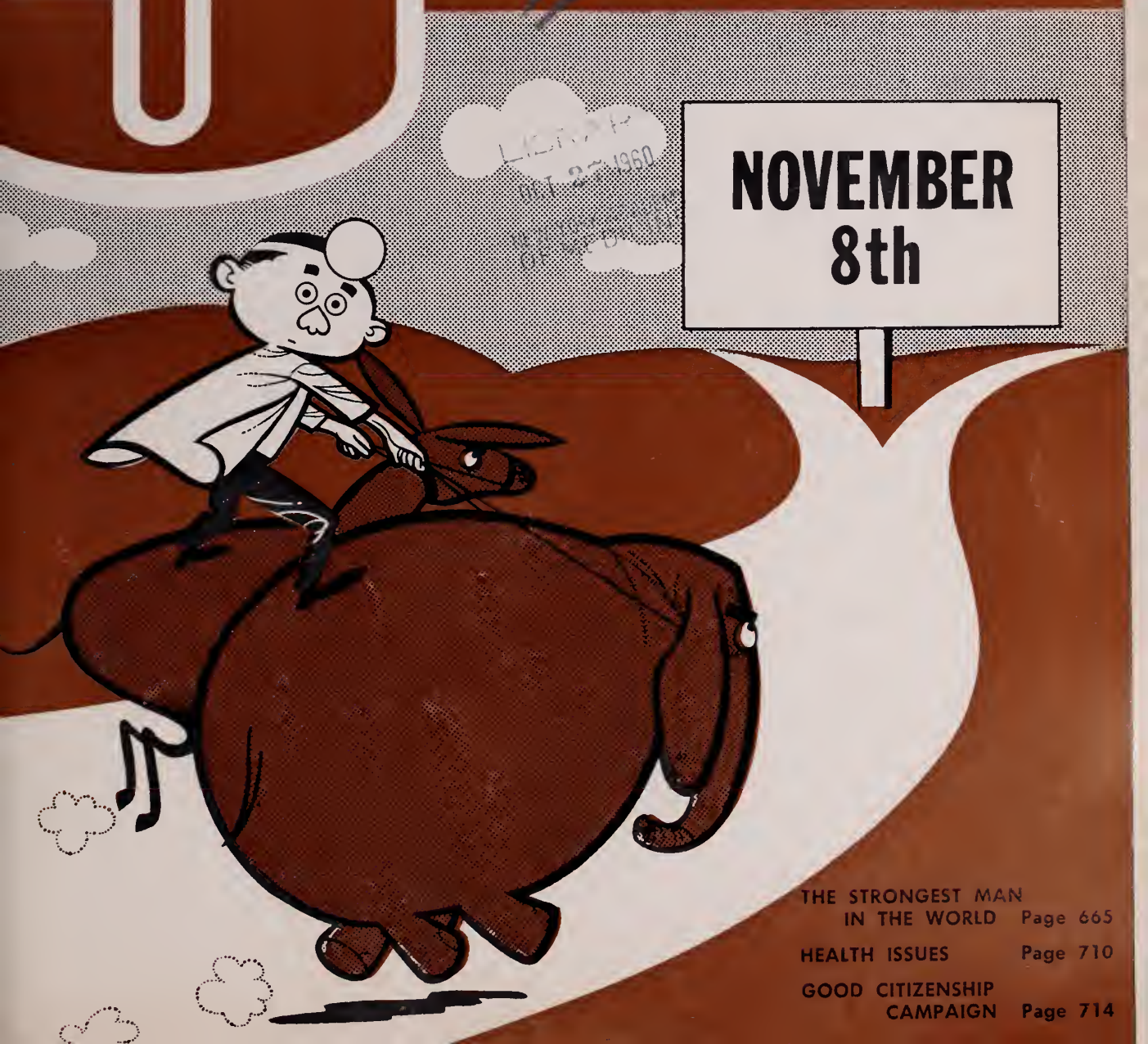
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(1) Abraham, W., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, Williams & Wilkins Company, 1956, p. 132. (2) Crawley, J. W.: M. Clin. North America 42:317 *(March) 1958. (3) Bray, P. F.:* Pediatrics 23:151, *1959.*

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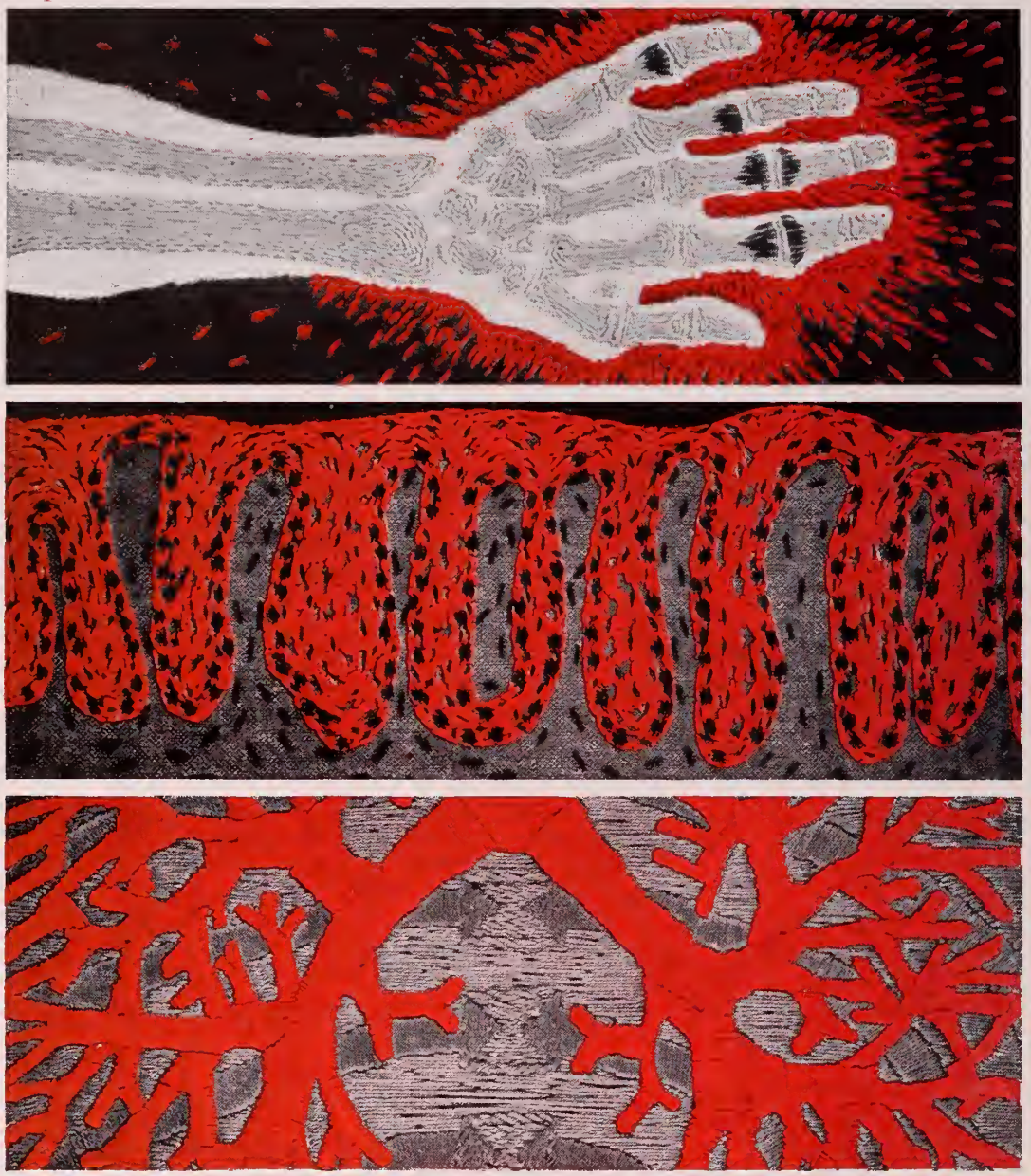
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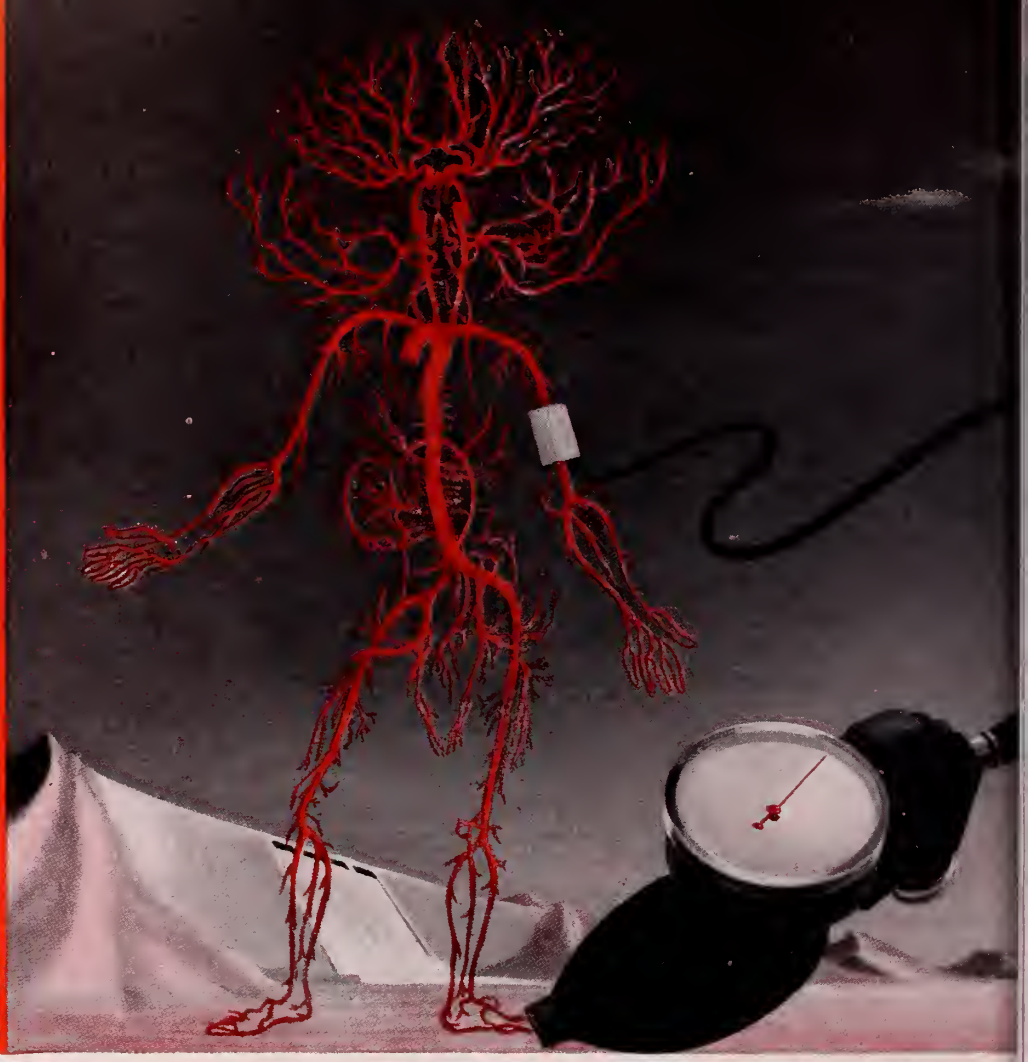
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REFERENCES: 1. Ford, R. V., and Nickell, J.: Ant. Med. & Clin. Ther. 6:461, 1959. 2. Fuchs, M., and Mallin, S. R.: Int. Rec. Med. 172:438, 1959. 3. Ford, R. V.: Int. Rec. Med. 172:434, 1959.

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*Knudsen, E. T., and Rolinson, G. N.: Lancet 2:1105 (Dec. 19) 1959.

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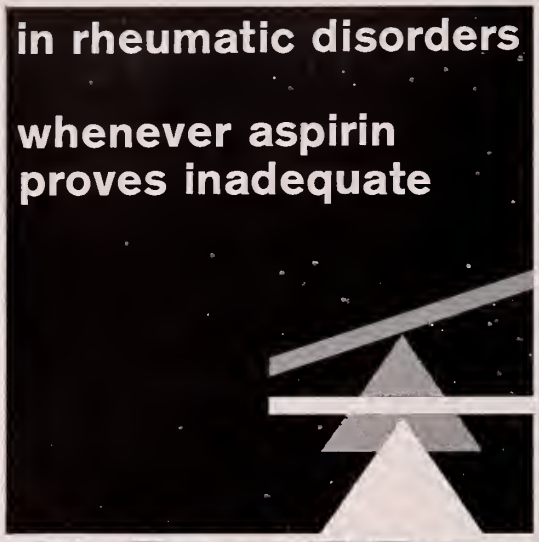
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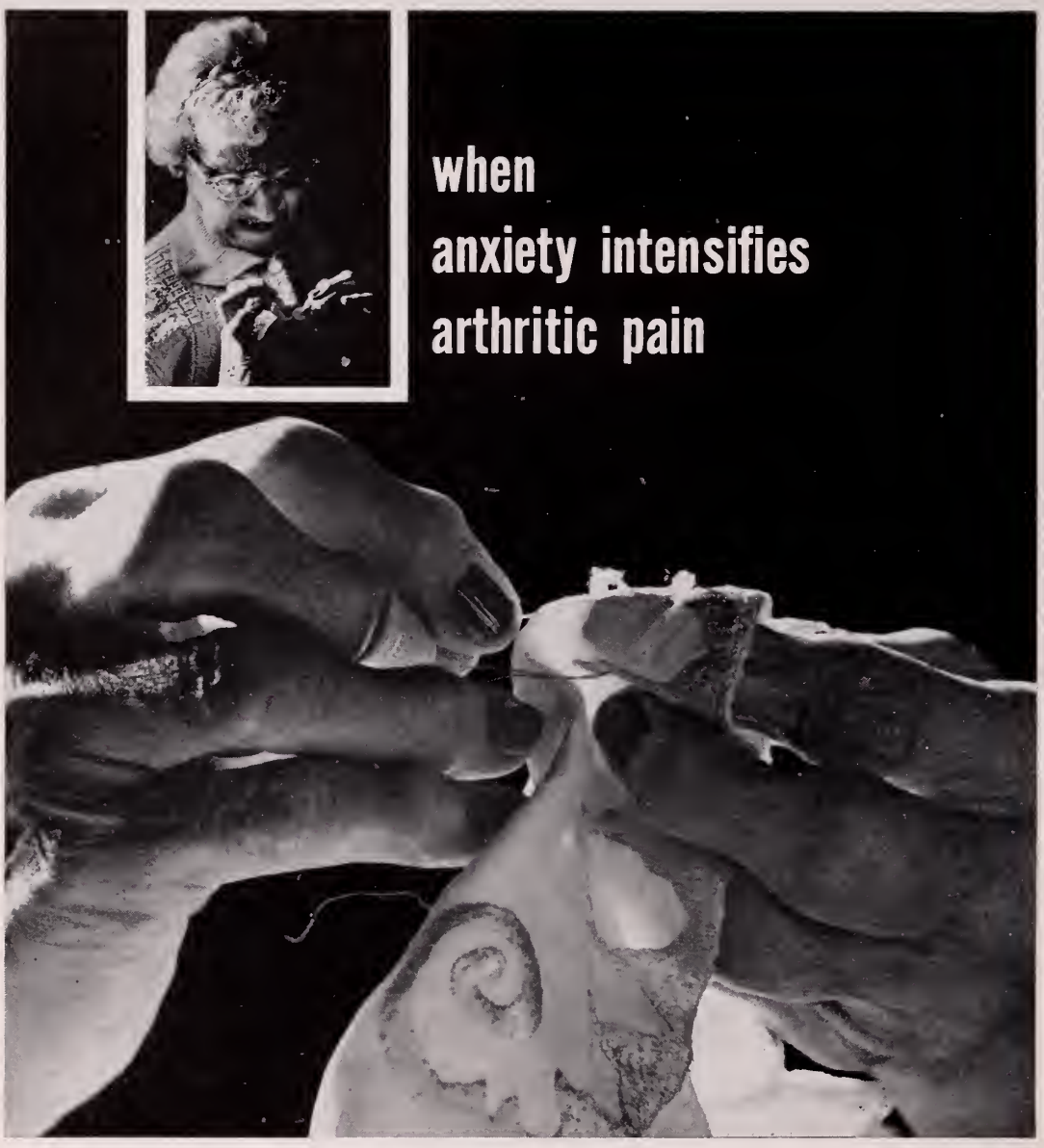
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Editorial

A Lesson in Christian Religious Philosophy

A saint is commemorated on the day of his death i.e., the day he entered heaven. This is the logical application of Christian belief; and yet the day of death, particularly of a young man whose future seemed bright before him, is one of almost unbearable grief and desolation even in the most Christian of homes. Is God a God of Vengeance or is He still a God of Love? The physician is often called on for the answer. To help him, the Journal *reprints below the remarks of The Reverend Byron Cravens at the memorial service for Kip Mohler, the seventeen-year-old son of Doctor and Mrs. Clyde Mohler of Ponca City, whose premature death was sudden, violent and accidental.*

MEMORIAL SERVICE FOR KIP MOHLER
July 9, 1960

Scripture Lessons: Psalms 23 and John 14.

In our humanity, we come this morning wondering: Why did this happen—this accident, the occurrence of which depended upon split-second coincidence? Why did this happen to a boy who would have been a senior in high school next year, a boy in the full vigor of youth?

But our Christian Faith wells up within us speaking persuasively, steadying us, and giving us courage.

The last time you worshipped here, you did not doubt that God was in command in this, His world. He is still in command this morning. The God who was a God of love when you last worshipped here, is a God of love still this morning. God has not changed, nor has He been changed.

The God who was concerned about you a week ago and who was interested in your welfare then, is interested still in you, and is even more deeply concerned about you this morning in your sorrow.

Our human situation from which we view God has changed, but God is the same.

There is much we do not understand this morning, and there is no final answer to our lack of understanding. Not an answer to our problem and it is a problem; but a fact of God's universe is that it was not meant that we should understand. If we could understand, we would be God.

Yet, there are bits of light which filter in through the vast covering of darkness and sadness which seems so oppressive to us this morning. Think deeply, for there are no surface helps.

Look with me first at the will of God. God's will is of two kinds: God intends some things to happen, He plans for them to happen, He "purposes" for them to happen—this we call God's intentional will, or His purposive will. Secondly, out of respect for man's freedom, God permits the unimpaired functioning of His laws, the laws of nature. He does not interfere with their functioning. This we call God's permissive will—He permits events to occur, though He does not intend them to occur. This accident, He did not intend, He did not purpose for it to happen, but He permitted it to happen. For this is a dependable universe, and God's natural laws function without variance upon guilty and innocent, upon man and beast, upon man and God. As God expects us to obey these, His laws, so He, too, does not break them.

This unalterable functioning of God's laws is a necessity if His universe is to be dependable. Though there is much we do not understand, this much we do understand: it is one of God's laws that two physical objects traveling in opposite directions

cannot collide without a terrific impact, and without the danger that the human beings involved will suffer. This is what happened. Had God broken this, His law, and supernaturally intervened so that this accident would not have occurred, then He would have ceased to be a dependable God, and stability of life and certainty of God and Natural Law would have gone out of the life of each of us, and nothing would be dependable for any of us this morning. At times, one, or many, of God's children must suffer, even die, in order that dependability and integrity of life may remain for the rest of the great human family.

God did not intend this accident to happen. He is a God of love. But, He permitted it to happen out of deference to man's freedom, and because He does not interfere with the operation of His laws which He obeys, just as He requires us to obey them.

This was an accident whose physical consequences distress us, but it was not a physical accident with any hidden spiritual meanings. To be more specific: Our God does not send such physical events as spiritual punishment upon the victim of the accident, nor upon those who are brought to sorrow because of the accident—because of anything that either the victim, or those who loved him, have done, or failed to do.

There is a verse of Scripture whose meaning I have questioned many times: "We know that all things work together for good to them that love God . . ." (Romans 8:28). This is not true if we confine life to a short view, to today, to the consequences of this accident; but it is true from the perspective of our total life. The emphasis belongs on the words "all things." Not this experience alone, but this together with all the rest of life's experiences work together for good to them that love God. The immediate pain and sorrow seems unbearable; but sorrow bravely borne with God's help, begets a depth of understanding and a source of strength which makes life richer and more precious and which will ultimately work for good. The thread of this experience can be woven into the fabric of our life and it can become a thing of strength and beauty and goodness. Our part as Christians is not to try to bear this by ourselves; but rather to allow God to supplement our own feeble strength so that this experience can be woven into the fabric of our life to make it all a thing of genuine goodness.

To the family, I should like to say two things:

First, the genuine beauty of this young life will shine always as a gem of great value, and you will want ever to hold dear his precious memory. Kip was a normal boy. He came from a Christian home. He was baptized in infancy, and I received him into this church where he was active. He liked model airplanes. He played in the High School band. He liked tennis and photography. He had a summer job. These personal treasures from out of his life you will want ever to hold dear.

Second, this is not the end of the life of his soul. His spirit is at home with God and will remain there throughout all eternity. In proportion, as you release Kip, whom you loved, into the complete love and care of Almighty God, you will be sustained and your sorrow will be more bearable. This morning, concentrate upon this: release him into God's care and keeping, and do not question God's ability to handle any phase of it by trying to hold on to Him yourself.

God is a God of love. His love for you was never more real, nor more available, than at this moment. Hear God Himself speak to you through His Son, Jesus Christ, our Lord: "Peace I leave with you. My peace I give unto you. Not as the world giveth, give I unto you. Let not your heart be troubled, neither let it be afraid."

BYRON CRAVENS, Pastor
Nichols Hills Methodist Church

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Because the greatness of your land springs right out of your own daily living, vote in every election. Vote as a citizen assuming his responsibility, vote as a man making use of a guaranteed right, vote—as the strongest man in the world!

—from Gregory E. Stanbro, M.D.

Perhaps the physicians of Oklahoma will persuade their 30,000 daily patients that they, too, are the strongest men in the world when they Vote on November 8. To this end, the Council on Public Policy announces a Good Citizenship Campaign on page 714 of this issue.

*Reprinted by permission from **Oklahoma**, (O.C.C. of C.) Thursday, September 22, 1960.

Scientific Articles

Prevention of the First Attack of Rheumatic Fever

JEROME D. SHAFFER, M.D.

WILLIAM BEST THOMPSON, M.D.

A graduate of Jefferson Medical College of Philadelphia, Jerome D. Shaffer, M.D., has been certified by the American Board of Pediatrics. In addition to his private practice, he is Assistant Professor in the Department of Pediatrics at the University of Oklahoma School of Medicine.

Doctor Shaffer is a member of the Oklahoma County Heart Association, the Oklahoma State Heart Association, the American Academy of Pediatrics, the Oklahoma City Pediatrics Society and the Osler Society.

William Best Thompson, M.D., is Assistant Professor of Medicine at the University of Oklahoma School of Medicine and is a cardiologist in private practice in Oklahoma City.

THE NEWER CONCEPT of preventing the first attack of rheumatic fever in a susceptible school population in Oklahoma was the object of this pilot study. To do this, it was necessary to pick up as early and as thoroughly as possible, all Beta hemolytic streptococcal infections in children with upper respiratory illness and to devise a means of more effectively controlling the spread of the Beta streptococcus in the school population.

Clinical, immunologic, epidemiologic and prophylactic evidence has overwhelmingly established the etiologic relationship of the Group A streptococcus to rheumatic fever. Clinically, physicians have noticed an association between sore throat and acute articular rheumatism for at least 200 years. The historic important work, the epidemiologic and bacteriologic studies of Coburn[1] in 1931, as well as Collis,[2] laid the foundation for the modern etiologic concept of Group A Beta hemolytic streptococcal infection in rheumatic fever. The large number of streptococcal infections which occur without apparent clinical symptoms, as well as the inability of the physician to diagnose an acute streptococcal infection, accounts for the fact that from 25 to 50 percent of patients with clinical rheumatic heart disease can give no history of streptococcal infection.

Long term immunologic studies of rheumatic subjects now indicate that virtually all initial and recurrent attacks of rheumatic fever can be shown to be associated with recent streptococcal infection.[3]

Numerous studies have emphasized the close relationship of the clinical, geographic and seasonal epidemiology of rheumatic fever and streptococcal infections. The careful bacteriologic and immunologic studies[4]

done in the Armed Forces of streptococcal epidemics in rheumatic fever presented extensive data to indicate that the environmental, bacterial and host factors are important, primarily as they are related to the incidence of preceding streptococcal infections. The factors of crowding, dampness, economic situation, altitude, latitude and age affect the incidence of rheumatic fever as they are related to the incidence of streptococcal infections in general.

The intensity of the immune response is measured by the antistreptolysin-O titer and is a major factor which may modify the attack rate of rheumatic fever. In general, the highest resultant rheumatic fever rates have been found in those groups of patients who have the significantly elevated convalescent antibody titers. The peak incidence of rheumatic fever falls in the school age population between the ages of 6 and 10 years when the highest level of streptococcal antibody titers are found and when the streptococcal infection is most intense.[5] For this reason the first grade of Putnam City School was chosen for this study.

It is of interest that Streitfeld and Saslaw[6] found an incidence of 37.9% of Group A streptococcal infection occurring at least once in a school year in healthy first and second grade children in Miami, Florida. They believe it reasonable to assume that approximately half of the children six to eight years of age in Miami, harbor these organisms in their throats at least once a year. It is significant that these Miami children from whose throats the organisms were recovered had significantly higher antistreptolysin-O titers than those from whom no such organisms were cultured. In the opinion of Stollerman,[7] it was highly significant, however, that the antistreptolysin-O titers observed in these children were very much lower than those seen in the same age group in large cities of the temperate zone of the United States, and that the magnitude of the rises reported in their study is small compared with the rise in children infected with streptococci who live in areas where rheumatic fever is relatively common.

Recurrence of rheumatic fever of 50% or more has been observed in outbreaks of streptococcal epidemics among children convalescing from recent rheumatic fever attacks, and among rheumatic children who have not been kept on continuous prophylaxis.[4] Careful study of the theories as to whether or not the rheumatic fever subject is genetically predisposed to react in this fashion to streptococcal infection or whether the rheumatic state is an acquired form of hyper-reactivity in a certain predisposed host as the result of intensive streptococcal infection yields no definite conclusion at this time.

The fact that the immune response in rheumatic fever subjects have not revealed any characteristic response that cannot be found in non-rheumatic persons who have been exposed to streptococcal infection; that there has been no qualitative or quantitative difference in the antibody formation in rheumatic fever patients as compared with the antibody response of non-rheumatic subjects, has continued to bewilder the research scientist.[8] Diamond[9] has noted that the constitutional features of hair color, eye color, racial acceptability, body build, blood groups, and salivary secretor status, were not able to be related to a constitutional rheumatic factor. Hyperextensibility of the joints was the only positive constitutional feature.

In regards to the rheumatic fever type of the rheumatic constitution, Paul[11] also reviewed several studies of physical characteristics in victims of rheumatic fever and concluded that measurements are difficult and the data and literature so conflicting, that it would seem unwise to pursue this subject beyond mentioning that the theory of a rheumatic fever constitution has its proponents.

Susceptibility to rheumatic fever may be genetically determined to a significant degree by family studies, twin studies and studies of physical characteristics. Concentration of studies in rheumatic fever in families has been conducted in various cities. By itself, such familial aggregation is unsatisfactory evidence for genetic predispo-

sition.[10] However, the difference in proportion of affected siblings according to its occurrence in the parent generation, for example, whether neither parent, one parent, or both parents have had rheumatic fever, seems explainable only on genetic grounds. Wilson[12] has suggested that genetic predisposition is inherited as an autosomal recessive. Significant increase concordance for rheumatic fever monozygotic twins have been reported several times.

The most drastic line of evidence for relationship of Group A streptococci to rheumatic fever has been the realization that the proper treatment and control of streptococcal infections will reduce the incidence, the morbidity and the mortality of rheumatic attacks. Prompt and adequate treatment of streptococcal pharyngitis in the general population will reduce the incidence of initial attacks of rheumatic fever.[7,13-15]

Cornfeld[16] in an epidemiologic study of 1,000 children, has noted that approximately one-half of the children studied had Beta hemolytic streptococci in their throats at some time during the school year in the absence of clinical symptoms. Routine throat swabs from healthy children were responsible for more than 75% of the positive cultures.

The literature reveals the incidence of the 25-40% of streptococcal infections of healthy first and second grade school children in Miami, Florida,[17] as well as the incidence of approximately 50% of the children in Philadelphia,[18] 5.2-51.2% in Orange County, California,[19] 6% in Youngstown, Ohio,[20] 2-6% in the normal childhood population in Los Angeles, California,[21] 19-43.8% in Yankton, South Dakota,[22] 3-4% in Cheyenne, Wyoming,[23] 2.2-45.7% in Casper, Wyoming,[24] and 34% in Fort Byron, New York.[25] These samples of positive Beta hemolytic streptococcal throat cultures in children varied from the positive culture taken in the asymtomatic child, to those children with two or more indications of a streptococcal infection in an epidemic. Variation in the state of health of the subject as well as variation in laboratory technique accounts for the range of statistics. Cultures so taken may represent a carrier state for an indefinite time, a recent infection or even a transient organism. Unless abnormal antistreptolysin and/or typable organisms are taken with the culture, the exact state cannot be determined.

The factors previously enumerated, such as crowding, dampness, age, etc. which affect the incidence of rheumatic fever may alter the tissue resistance of the well child with an incidental Beta hemolytic streptococcus cultured from his throat.

When a clinical illness of any degree occurs, the antigenic response will be reflected by an increase in ASO titer and this child is a potential candidate for rheumatic fever.

It is the opinion of the authors that the higher the percentage of streptococci in the healthy child population, the greater the potential for the development of rheumatic fever, if the contributory factors of environment, family, susceptability, and social-economic status are altered to predispose to clinical illness.

In order to devise a practical plan, it was thought that the children of Putnam City Schools who were absent due to upper respiratory infection should have a throat culture. In brief, through the cooperation of the Putnam City School system, the school physicians, school nurses, the State Health Department and the cooperation of the City-County Health Unit, the Visiting Nurses Association and the Rheumatic Fever Prevention Committee of the Oklahoma State Heart Association, cultures were taken from all first grade children who were absent due to upper respiratory infections. The bacteriologic diagnosis was determined in the bacteriology laboratory of the Oklahoma State Health Department. The patient's private physician was notified of the positive Beta hemolytic streptococcal cultures and was urged to give adequate therapy. The children with positive cultures were returned to school upon the advice of their physician and a repeat throat culture was taken. If the repeat throat culture was positive, the patient was returned to his private physician for further treatment.

TABLE I

Respiratory Illness Frequency, Putnam City First Grade, School Year 1958-1959

Number of Illnesses	Number of Children	Per Cent of Children
0	262	46.2
1	205	36.2
2	83	14.6
3	13	2.3
4	3	0.5
5	—	—
6	1	0.2
Total	567	100.0

Division of Statistics
Oklahoma State Department of Health
July, 1959

The Putnam City School System comprises a rapidly growing, rural-urban area and was chosen because of the wide spread in social, economic and environmental conditions. The number of school absenteeisms in Putnam City first grade revealed approximately 2,500 absences in 560 children for the year 1957-1958 and was compared to the 305 absences in 567 children for 1958-1959.

Of the 567 children in the first grade in the school year 1958-1959, 305 or 53.8% had an upper respiratory infection. 262 or 46.2% of the children had no upper respiratory illness sufficient to cause absence from school (See table I).

One hundred fifty of the 305 children who were absent had negative throat cultures. One hundred seventy-three illnesses resulted in positive Beta hemolytic streptococcal cultures. One hundred thirty-nine of these children had one illness resulting in a positive culture; 14 children had two illnesses resulting in a positive culture; two children had three illnesses with positive cultures (See table II).

TABLE II

Positive Beta Hemolytic Streptococcal Illness Frequency, Putnam City First Grade, School Year, 1958-1959

Number of Positive Illnesses	Number of Children Ill	Per Cent of Children
0	150	49.2
1	139	45.6
2	14	4.6
3	2	0.6
Total	305	100.0

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TABLE III

Duration of Illnesses Before Culture, Number and Per Cent, Putnam City First Grade, School Year, 1958-1959

Number of Days Ill Before Culture	B. Hemolytic Strep. Positive		B. Hemolytic Strep. Negative	
	Number	Per Cent	Number	Per Cent
1	98	56.6	159	62.4
2	23	13.3	30	11.8
3	13	7.5	24	9.4
4	3	1.7	1	0.4
5	2	1.2	2	0.8
6	2	1.2	1	0.4
7	2	1.2	4	1.6
21	—	—	1	0.4
Unknown	30	17.3	33	12.9
TOTAL	173	100.0	255	100.1

NOTES ON INTERPRETATION:
NO STATISTICALLY SIGNIFICANT DIFFERENCES.

Average length of illness at time of culture is same for both positive and negative group. Both averages are 1.62 days.

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An overall incidence of 50.8% positive Beta hemolytic streptococcal cultures was present in the respiratory infections of the absentees. This incidence of 50% occurred in a "light" year for streptococcal infections.

It is of interest that the duration of the illness revealed no statistical significant difference between the positive and negative group of cultures. Both averaged 1.62 days (See table III).

PART II

A typical, acute upper respiratory infection due to the hemolytic streptococcus begins suddenly with a sore throat, adenitis and a fever which may rise as high as 104°. Abdominal pain is not infrequent in these children. When seen early in the course of illness, the throat has a characteristic red, beefy appearance. A follicular exudate is usually present, but not necessarily. The regional lymph nodes generally are swollen and quite tender. There may be suppurative otitis media and sinusitis as a complication. The clinical findings, as set forth above, indicate a streptococcal infection. A leucocytosis of over 12,000 is generally considered consistent with the diagnosis of a strepto-

coccal infection. According to Rammelkamp,[26] the classical triad with a throat infection of fever, pain upon swallowing and adenitis, allow a clinical diagnosis of 70% accuracy. A clinical error of 30% in diagnosis is far too great for good medical care.

The atypical and far less characteristic respiratory infections which may also be due to hemolytic streptococcal infection, and which if untreated and unrecognized, may also lead to rheumatic fever, is the great problem. Shaffer and Pfundt[27] have shown that even the most competent board certified pediatricians will miss 20% of streptococcal infections unless bacteriologic studies are routinely used on suspicious throat infections. Breese and Disney[28] also emphasized the difficulty of accurate diagnosis of Beta streptococcal infections on clinical grounds. In their study, when checked against bacteriologic cultures, the accuracy in both positive and negative cultures were approximately 75%.

As set forth in table IV, it can be noted that the occurrence of four symptoms are statistically significant: that of the sore throat, fever, pain on swallowing, and swollen or tender cervical glands.

It is thus apparent that the major limitations of the chemotherapeutic approach to the prevention of initial attacks of rheumatic fever are the difficulty of clinically identifying a streptococcal sore throat and the fact that at least one-third of the patients with acute rheumatic fever do not appear to have had a clinically apparent streptococcal infection. In infants and very young children, the difficulties of diagnosis are far greater because the characteristic symptoms and signs are far less apparent.

Of 173 illnesses with the first culture positive, the first follow-up culture on return to school was also positive in 47, or 27.2% of the illnesses. Of the 173 positive culture illnesses, 126, or 72.8% received adequate treatment by the American Heart Association standards to prevent sequelae or complications.

To prevent the complications of subsequent rheumatic fever, Group A streptococci must be eradicated completely from the nose and throat of the patient who has a streptococcal pharyngitis. Clinical cure of the signs and symptoms of the infection is inadequate if the organisms persist after treatment.[29] Institution of eradication therapy as long as 72 hours after the onset of the infection

TABLE IV

Statistical Significance of Differences in Occurrence of Symptoms, Putnam City First Grade School Year, 1958-1959

	Per Cent Having Specified Symptom		Statistical Analysis			
Symptom	B. Hem. Strep. Pos.	B. Hem. Strep. Neg.	Diff.	S.E. of Diff.	Rel. Dev.*	Prob.
Sore throat	88.4	74.5	13.9	3.9	3.6	.0003
Headache	45.7	41.2	4.5	4.9	0.9	.37
Fever	75.1	58.8	16.3	4.7	3.5	.0005
Abdominal pain	32.4	37.6	—5.2	4.7	—1.1	.27
Nausea or vomiting	22.5	22.7	—0.2	4.1	—0.0	1.00
Pain on swallowing	52.6	39.6	13.0	4.9	2.7	.007
Subj. sore thrt.	41.0	34.9	6.1	4.8	1.3	.19
Swollen or tender cervical glands	69.9	59.2	10.7	4.7	2.3	.02

*RELATIVE DEVIATE is Diff./S.E. of Diff.

NOTES ON INTERPRETATION:

A probability of .05 or less is generally considered to represent a statistically significant difference. By this, the differences in occurrence of four symptoms are statistically significant—sore throat, fever, pain on swallowing, and swollen or tender cervical glands.

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will be as effective in preventing rheumatic fever as treatment instituted immediately.

Of importance is the evidence offered by Thomson and Innes,[30] Green,[31] and Collis,[32] that rheumatic valvulitis might be due to invasion of the valvular endocardium by the Group A streptococcus; in other words a bacterial endocarditis. Mortimer's[33] Series tend to reveal the usual symptoms and signs of the disease but a definite decrease in valvular disease as compared with a control group not receiving six weeks of intensive penicillin therapy—further evidence is thus offered that the Group A streptococcus must be eradicated from the body. Marienfeld[18] et al report the isolation of diplostreptococci from the blood of patients with active rheumatic fever; thus confirming the work of earlier investigators and suggesting that rheumatic fever and subacute bacterial endocarditis are different only in the hypersensitivity and immune responses of the patient.

Sulfanilamides which are bacteriostatic will eradicate the streptococcus but will not prevent non-bacterial complications. Penicillin, although a powerful bactericidal agent, must be administered well beyond the clinical cure to eradicate permanently the streptococcus from the throat and to prevent non-bacterial complications.

Different forms of injectable penicillin result in various blood levels. Six hundred thousand units of penicillin G will cause very high levels for a few hours. Six hundred thousand units of aqueous procaine penicillin produces lower levels lasting for two days. When procaine penicillin is combined in oil with aluminum monostearate, the levels are still lower and last four days. Injection of benzathine penicillin (600,000 and 900,000 units) will provide still lower levels, but these blood levels persist 10 to 14 days and usually cure most cases of streptococcal pharyngitis. One and two-tenths million units of benzathine penicillin will give longer lasting levels for approximately 28 days, with resultant cure in nearly 100% of the cases.

In the administration of penicillin parenterally, any schedule may be employed which maintains an effective blood concentration of penicillin for a ten day period. Group A streptococci are invariably sensitive to penicillin levels of less than .04 units per milliliter *in vitro*. Therefore, the blood concentration need not be high to achieve a maximum killing effect *in vivo*.[34] *Once these blood levels have been achieved, the efficiency of chemotherapy is a function of the duration for which they are maintained.* Therefore, a single injection of benzathine penicillin, particularly in a larger dose of 1.2 million units, will achieve a cure of streptococcal pharyngitis both clinically and bacteriologically, with as great efficiency as any other course of penicillin administered in any dose for 10 days. Six hundred thousand units of procaine penicillin, given every other day for four doses, will result in a bacteriological cure rate of 95%. The same cure rate will result from a *single* injection of 1.2 million units of bezathine penicillin.

Tetracycline compounds or erythromycin treatment for 10 days also eradicates, but less efficiently, the organism from the throat and reduces the incidence of rheumatic sequelae. These broad spectrum antibiotics may be reserved for those patients who are hypersensitive to penicillin.

As set forth by the above standards, the number of Putnam City children with positive cultures receiving inadequate therapy was 47. It is a coincidence that this is the same number which had a positive follow-up culture. They were not the same 47 children however. In one of the two children who had three illnesses resulting in positive cultures, a peritonsillar abcess, secondary to streptococcal infection, was discovered and in the second child, cultures of the family group revealed adult carriers. As brought out by Poscanzer,[25] in carrier studies conducted in 124 families of children with positive streptococcal cultures, 7% of the adults over 24 years of age and 24% of the siblings had positive Group A Beta hemolytic streptococcal cultures. Forty families which did not have children in the school also had throat cultures. None of the adults more than 24 years of age in his second group

were found to have streptococci in contrast with 4% of the adults cultured the same day in school-associated families. These observations tend to support the hypothesis that the school is the focus of infection and that families with children in school have a higher rate of infection than families without children in school. However, in both groups of families, the adults in his study appeared to be relatively resistant to infection.

This study, it is emphasized, is merely an attempt to apply existing knowledge in actual prevention of rheumatic fever. Indirectly, it is a study of the epidemiologic streptococcus in Oklahoma in a selected sample.

As set forth by Madsen and Kalbak,[35] the commission on acute respiratory diseases;[36] Weinstein and Potsubay,[37] and last by Rammelkamp, Wannamaker and Denny,[38] the incidence of rheumatic fever will vary from 3.6 to 2.6 following a streptococcal infection. If a streptococcal epidemic is present, the incidence may rise an additional 2%. In this study which revealed 173 streptococcal illnesses with one or more positive Beta hemolytic throat cultures, an expected rheumatic fever incidence would be five to six cases. In this study, the results show not a single case of acute rheumatic fever had resulted in the children in this group. One child had acute glomerular-nephritis when seen by her private physician at her first visit after the report of the positive throat culture. This particular child had been ill two and one-half weeks before the original culture was taken and it is apparent that clinical nephritis was present when the child was kept out of school and the initial positive throat culture was taken.

All respiratory infections should be given serious attention in children of school age. Only by the use of throat cultures more routinely can the treatment of upper respiratory infections be placed on a sound scientific basis. A practical approach to the prevention of the initial attack of rheumatic fever has been shown to be feasible through the complete cooperation of the various groups involved. This preventative program was found to be workable, without the disruption of school routine and with the safety of the uninfected child. By the exclusion of strept-infected children, as an educational effort to the layman, parents, and doctors, the study was very effective in increasing knowledge of rheumatic fever.

The final answer to the prevention of the initial attack of rheumatic fever is not present. In our opinion the chemotherapeutic approach to the prevention of the first attack is the best procedure at this time. With a positive culture, in the authors' opinion, there should be further serologic study to determine the full significance of the infection. It is to be emphasized that the proper diagnosis and treatment of streptococcal infection as well as the diligent protection of the rheumatic heart patient will markedly reduce the incidence of the dread disease. The knowing physician whose level of personal responsibility is high will apply this knowledge that is readily available.

Conclusions and Summary

(1) The current status of the epidemiology, prevention, diagnosis, and treatment of rheumatic fever is presented,

(2) A practical cooperative method of preventing rheumatic fever in a school age population has been demonstrated,

(3) One hundred seventy-three positive streptococcal cultures were found in 567 children in this selected school group,

(4) One hundred twenty-six (72.8%) were given adequate therapy initially, according to American Heart Association Standards,

(5) Forty-seven (27.2%) received initially inadequate therapy but even these were eventually given enough antibiotic therapy to convert their throat cultures,

(6) No cases of acute rheumatic fever developed in this group of 173 although a minimum of five would have been anticipated,

(7) One case of pre-existing acute glomerulo-nephritis was discovered.

(8) The efficiency of this procedure is applicable to entire school population,

(9) Cooperation among all participating groups and agencies is the key to prevention of rheumatic fever.

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Pasteur Buidling

Oklahoma City, Oklahoma

The Blues Lead In Enrollment Of Civil Service Workers

Blue Cross-Blue Shield led all other organizations in the enrollment of federal workers who became eligible for health insurance benefits under the Federal Employee Health Benefits Act (Reported in June, 1960, *Journal.*)

More than 55% of the estimated 1,695,000 federal workers who selected coverage from among the 38 programs available chose to enroll in Blue Cross-Blue Shield. The 935,000 workers who selected Blue Shield more than doubled those who selected the indemnity-benefits-program provided through a commercial insurance company.

Blue Shield officials consider the wide margin to be a vote of confidence, and proudly point out that the preference reflected by the federal workers is indicative of the leadership the Blues have continued to display in the enrollment of large segments of the public.

Disappearance of Metastases Following Nephrectomy for Carcinoma*

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THE SPONTANEOUS REGRESSION of metastatic lesions after the removal of a carcinomatous kidney is a rare occurrence. The literature contains only a few reports of complete regression of metastases after the removal of the parent tumor.[1,2,8,9,10,11,12] Included herein is a report of two cases demonstrating resolution of pulmonary metastases following removal of a carcinoma of the kidney.

A 59 year old male was admitted to the Veterans Administration Hospital on 10-26-58. The admitting diagnosis was reducible scrotal hernia. The genito-urinary history was significant. In 1954 an intravenous pyelogram was done because of urinary frequency and dysuria. The patient was told the left kidney was "tilted." In 1956 and in 1958 he had bouts of gross, total, painless hematuria. The last episode was one month prior to admission. A five pound weight loss had occurred over the past two or three years.

Physical examination revealed a well-developed, thin, white male. The positive physical findings were a large, firm, non-tender, fixed mass in the left upper quadrant of the abdomen which moved with respiration and a left scrotal hernia. The prostate was normal in size and consistency.

Admission hemogram showed 7,300 white blood cells, a hemoglobin of 12.3 grams and a hematocrit of 49%. The urine was free of protein and contained four to six white blood cells per high power field. Blood urea

*From the Urological Service, University of Oklahoma Medical School Hospitals, Oklahoma City, Oklahoma.

nitrogen was 10 mgm/%. Chest x-rays showed several discrete rounded densities bilaterally which were variable in size and consistent with lesions typical of metastatic carcinoma (figure I-A). The scout film of the abdomen revealed a large, oval, soft-tissue shadow occupying the left upper abdomen and displacing the bowel pattern medially. Intravenous pyelography showed prompt excretion and normal anatomy of the right kidney. The left kidney was non-functioning. A left retrograde pyelogram showed marked distortion of the upper calyces (figure I-B).

A left nephrectomy was done on 11-19-58. A tumor mass measuring fifteen by thirty centimeters was removed. Extension of the tumor to the caval and aortic areas with involvement of the renal vein was noted. The post-operative course was uneventful except for a straphylococcal infection. The follow-up chest films at the time of discharge showed little, if any, change. The microscopic diagnosis was clear cell carcinoma with extension into the renal vein.

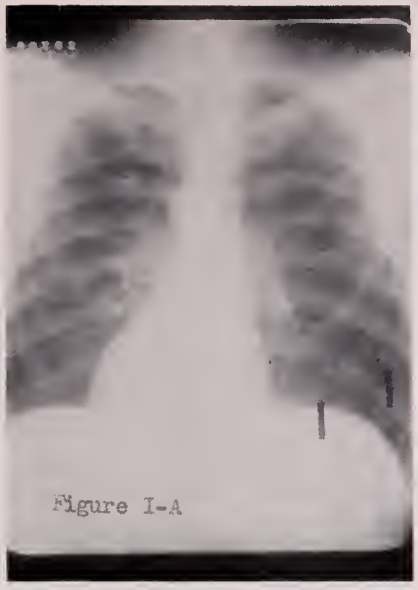


Figure I-A



Figure I-B



Figure I-C



Figure I-D

Figure 1: First case reported. (A) Pre-operative film showing pulmonary metastases. (B) Left retrograde pyelogram showing distortion produced by carcinoma. (C) Regression of pulmonary lesions 10 months post-operative. (D) Complete regression 14 months post-operative.

On 9-22-59 the patient was readmitted for evaluation. He had gained twenty pounds and was symptom-free. Except for the previously described hernia and a well healed nephrectomy scar, the physical examination was negative. A chest film taken 10 months post-operatively showed almost complete disappearance of the pulmonary metastases (figure I-C). No bony metastases were detected on either the chest or abdominal films.

An inguinal herniorrhaphy was done. The post-operative course was complicated by a staphylococcal infection which cleared very slowly. At the present time which is over fourteen months since the nephrectomy, there is no clinical or x-ray evidence of malignancy (figure I-D). The patient is doing well. Although at no time was a biopsy of the pulmonary lesions obtained, the x-ray findings were typical of metastatic disease.

The second patient is a 59 year old white

female who was first seen in the Emergency Room of the University Hospital complaining of severe pain in the left lower quadrant of the abdomen accompanied by chills, nausea and vomiting. The pain persisted for approximately thirty minutes and then subsided. About one week prior to this episode she had noticed her urine to be cloudy. She was referred to the University Outpatient Clinic for investigation. An intravenous pyelogram was done which revealed a large soft tissue mass in the left kidney associated with blunting of the calyces. The right kidney showed prompt function and normal architecture.

The past history revealed a "heart attack" about seven years previously. She had been hypertensive during the past three years. At the age of twenty-two a nineteen pound ovarian cyst had been removed and at the age of thirty-six a hysterectomy had been done for hemorrhage.

Physical examination presented an obese white female who appeared chronically ill. The blood pressure was 126/76. The temperature was 98.6°. Tenderness was noted in the left upper quadrant of the abdomen and in the left costovertebral angle. No masses were palpable. Further examination was not remarkable.

Laboratory data showed a hemoglobin of 8.3 grams percent and a BUN of 13 mgm%. The urine contained 15-20 WBC/HPF without protein or casts. Urine culture produced two varieties of coliform bacilli. The ECG was compatible with an old myocardial infarction. A left retrograde pyelogram showed a hydronephrotic left kidney. A pre-operative chest film was reported as normal.

After several whole blood transfusions, a left nephrectomy was done. Numerous perinephric adhesions were found. A tumor was present in the lower pole of the kidney with a concomittant hydronephrosis presumably secondary to compression of the uretero-pelvic junction by the lower pole tumor. The post-operative course was uncomplicated. The pathologist's report was renal cell carcinoma, hydronephrosis and chronic pyelonephritis.

The pre-operative chest film when viewed in retrospect showed small, ill-defined shadows in both lung fields which did correspond to the marked metastatic lesions seen on the chest film of 5-1-58 (figure II-A). A repeat chest x-ray on 9-26-58 showed regression of the previously described pulmonary lesions (figure II-B). A chest film on 1-5-60 is negative (figure II-C).

The patient has gained weight and is doing very well with no clinical or x-ray evidence of metastases. It is now twenty-two months since nephrectomy. Although no

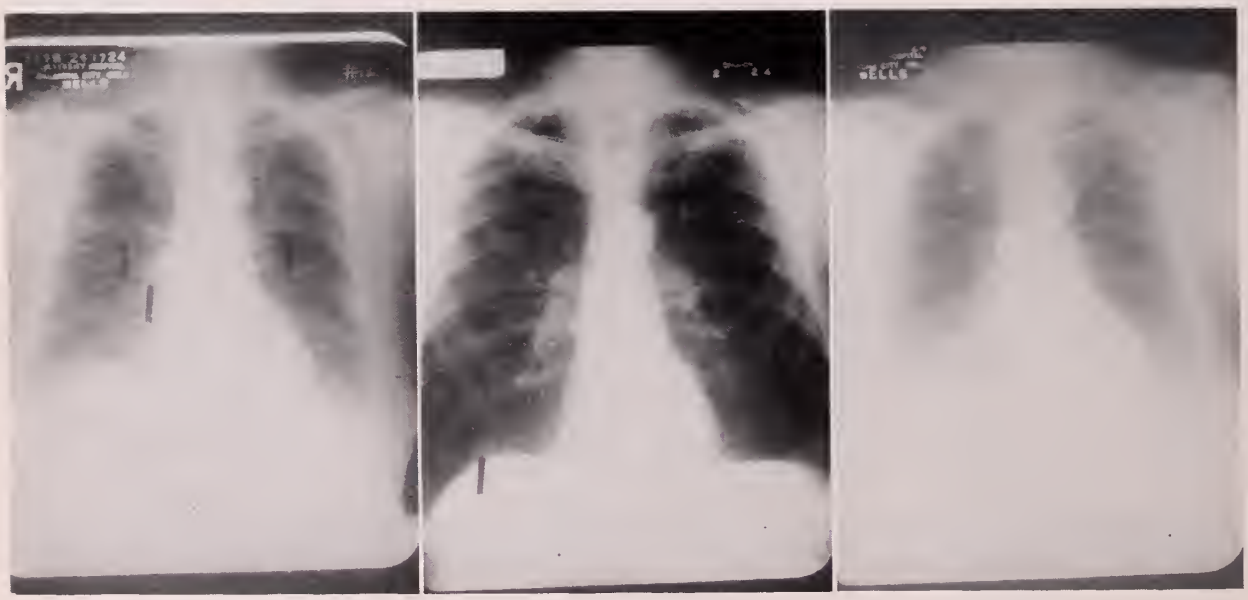


Figure II-A Figure II-B Figure II-C

Figure 2: Second case reported. (A) Pulmonary metastases 1 month post-operative. (B) Regressions beginning 3 months post-operative. (C) Complete regression 20 months post-operative.

pathological diagnosis was obtained to substantiate the diagnosis of pulmonary metastases, the chest films were typical of metastatic implants in the lungs.

Carcinoma is the commonest form of renal parenchymal tumor in the adult. It comprises one-fourth of renal tumors found at autopsy.[6] Its growth may be quite slow and symptoms may be due solely to the size of the tumor. Metastasis is usually by way of of the blood stream. Renal vein and caval extension is therefore common. Lungs, bones, and brain are the sites of predilection for metastases although all areas of the body may be involved. The slow development of metastases is not unusual with reports of ten, fifteen or more years occurring between nephrectomy and the appearance of metastases. Long term survival has been reported in the presence of widespread disease.[4] The ten year survival has been reported as ranging up to 27%.[7]

The spontaneous disappearance of many types of malignancies has occurred, some following the removal of the parent tumor, others having had no more than a biopsy for diagnostic purposes in the presence of a clinically inoperable carcinoma. Regression of renal carcinoma has been evidenced at autopsy.[2] Only a few cases of known spontaneous disappearance of metastases have been reported. Most of these have occurred following nephrectomy; however, the partial disappearance of metastases has been noted without removal of the parent tumor.[11] In some instances metastases have occurred post-nephrectomy only to regress.[3] Campbell[13] as well as Dodson[7] agree that the treatment for renal carcinoma is nephrectomy provided that not more than one discernible metastasis has occurred. The rare incidence of resolution of distant metastases after the removal of the primary tumor in itself does not justify routine nephrectomy at this time. Nephrectomy in cases with multiple metastases should still be considered only palliative and indicated to arrest hemorrhage, relieve pressure symptoms, and eradicate severe infection.

The cause of regression and disappearance of metastatic carcinoma is speculative. Theories propounding immunological factors in which the level of antibody production is sufficient to overcome the growth factor in the tumor are interesting and may furnish a clue to host immunity to cancer in general.

Summary

Two cases of carcinoma of the kidney have been presented in which spontaneous disappearance of metastatic pulmonary lesions have occurred following nephrectomy. Such a phenomenon is quite rare. The number of cases reported are insufficient to alter the current use of nephrectomy in the presence of widespread metastases for other than palliative therapy.

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PYELONEPHRITIS*

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PYELONEPHRITIS is a much discussed subject lately because of the (1) prevalence of the disease and (2) the disparity between the clinical and post-mortem findings.

As to frequency of occurrence, 9% in 4,425 autopsies were reported by Jackson and co-workers and 15% in 1,800 autopsies reported by Philadelphia workers.

The difference in ante-mortem diagnosis and post-mortem findings was noted by Longcope and Jay P. Sanford. Sanford further stated that overall incidence of asymptomatic bacteria fairly closely approximates the frequency with which pyelonephritis is observed at autopsy. The problem resolves itself into an earlier and more frequent recognition of the condition and more adequate treatment.

What is pyelonephritis? The disease is a bacterial invasion of the kidney causing multiple abscesses and later scarring of the interstitial tissue of the kidney with loss of tubular function and ultimately degeneration of the glomeruli.

Etiology

The etiology is hematogenous, lymphogenous, and ascending urogenous. The most common cause of the condition is obstruction or injury. Dr. Henry Weyrauch demonstrated that injection of bacilli into the blood stream of animals failed to cause pyelonephritis unless there was obstruction or injury to the kidney. The ureter on one side of 24 rabbits was partially obstructed and bacilli were injected directly into the blood stream. Twenty-three kidneys on the obstructed side showed acute pyelonephritis. Multiple abscesses followed later by streaking and scarring. Only six of the kidneys on the unobstructed side showed any infection and this cleared up in six days

Brewer in 1915, Mallory, Crane and Edwards in 1940, and Beeson, Rocha, and Guze in 1957, all demonstrated that in experimental animals, pyelonephritis does not develop following introduction of coliform bacilli into the urinary passages or into the

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blood stream unless there is obstruction or trauma.

The question of catheterization causing pyelonephritis is an important one. Most urologists who catheterize patients many times a day do not believe that the danger of producing pyelonephritis is as great as expressed by the bacteriologists. Jackson and Grieble in a recent report found that out of 58 patients catheterized 169 times less than 3% showed bacteria. Of those who do show bacteria it is doubtful whether a true pyelonephritis is caused since previous studies have indicated that bacteria introduced into the bladder do not produce pyelonephritis. Retention catheters and careless catheterization will certainly produce it.

Detection of Pyelonephritis

It is apparent that one of the chief reasons for widespread presence of the condition is the failure to recognize the condition when symptoms are minimal. The urinalysis is important and lately considerable discussion has taken place as to the best methods of collecting the specimen, and the nature of the examination. It is well established that bacteria are present in the urethra of the male and female and bacteria will be found in a high percent of normal patients. Bacteriologists have established however a *freshly* collected specimen by catheter or midstream collection which has less than 10,000 bacteria per milliliter is not significant, but those containing more do have a urinary infection. This method is difficult to establish as a routine and yet cases will be overlooked if it is not.

It is to be noted that the appearance of bacteria on a smear made from freshly voided or catheterized specimen indicates the presence of more than 10,000 bacteria per milliliter. This test is no more complicated than a blood count and could be incorporated in routine tests made on all patients admitted to the hospital or office. Fresh or refrigerated uncentrifuged voided specimen stained with methylene blue or even an unstained microscopic observation would immediately identify urinary infection. McDonald and Kass of Boston state that bacterial counts of the bladder urine were performed in 100 patients who later came to autopsy, and the bacterial counts were correlated with the pathological data. Active pyelonephritis was found in only 14 of the 40 patients with a 100,000 or more bacteria per milliliter of urine, which would suggest that the 26 others had the infection in the bladder or prostate and not in the kidney. The Aerobacter aerogenes was the predominating micro-organism found. Clinical diagnosis of active infection of the urinary tract was not made in 70% of cases in which active pyelonephritis occurred. In many of those in which the diagnosis was not suspected, extensive pyelonephritis, sufficient to be a major cause of death, was found.

All urinary infections are not pyelonephritis. The location of the infection requires more than a laboratory study. A thorough systematic urological examination is indicated in all persistent or recurrent urinary infections. Of course, the presence of bacteria in a specimen collected from the kidney definitely establishes the diagnosis but even a negative specimen does not rule it out since the patient may have been on antibiotics or in a regressive stage, therefore, it is well to wait for a flareup and make the examination prior to giving medication. Pyridium is an excellent drug to give in the interim.

Treatment

Since pyelonephritis is mostly caused by obstruction, the presence of obstruction must be detected and relieved. It involves many maneuvers to detect this but many can be done in the office and do not require elaborate instruments. To mention a few, a two glass test—old but valuable—first glass cloudy, second glass clear, indicates lower urinary infection in the male.

Pus found in prostatic secretion indicates prostatitis. I cannot detect prostatitis just feeling the gland.

The presence of residual urine determined simply by passing a catheter after voiding in male or female establishes the presence of an obstruction at the bladder neck. It is more important to know this than the risk involved in catheterization.

A cystogram taken at the same time by introducing four ounces of 4% potassium iodide and taking an x-ray after voiding attempt will establish loss of integrity of the ureterovesical valve-like structure (regurgitation). This is very important to do in infants and children, often revealing large hydroureters and pelvis.

Ureteropelvic obstructions are detected of course by ureteropyelograms or intravenous pyelograms. The latter is excellent as a screening but not definitive in most cases.

Bacterial Treatment

The continuing development of antimicrobal drugs has aided in the reduction of incidence of pyelonephritis, as noted by a recent study. Having been interested in such development since the introduction of mandelamine in 1928, I am convinced of the necessity of making the cultural identification of the organism and sensitivity tests in all recurrent and persistent infection. Our therapeutic agents are highly selective and require careful selection of the proper drug, but it also is highly rewarding.

Choice of Drug

The successful treatment depends on the localization of the disease, the demonstration and relief of obstruction, and the selection of the proper drug. Repeating cultures of urine is often necessary because of the changing flora due to emergence of resistant strains.

Our in vitro and in vivo studies would indicate the following choice of drugs.

ESCHERICHI COLI	CYCLINES - FURADANTIN - CHLOROMYCETIN
PROTEUS	KANTREX - FURADANTIN - GANTRISIN
AEROBACTER AEROGENES	KANTREX - CHLOROMYCETIN
PSEUDOMONAS	COLY-MYCIN - KANTREX - TERRAMYCIN
STAPHYLOCOCCUS and STREPTOCOCCUS	TAOMID - MADRIBON - KYNEX - PENICILLIN

Chronic Renal Papillary Necrosis

This condition attracted my interest when Nils Hutlengren (of the urological unit of Karolwisk Synkhuset) in Stockholm, Sweden, presented a review of 34 patients at the International Urological Association in 1958. We were familiar with the acute papillary necrosis in diabetics, but it is apparent that the chronic type often goes unrecognized since it runs a relatively mild course with lesser severity at long intervals. The diagnosis is best made by intravenous and retrograde pyelography. Only five of this series were diabetics. The papillae become infected, slough off, and lodge at times in the ureter causing hematuria and renal colic, simulating a stone. After the loss of the papilla the major calix become rounded out, the picture of chronic pyelonephritis.

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MEDICAL  CENTER

Message from the Dean

In our efforts to develop an efficient and useful library at the University of Oklahoma Medical Center, we feel that our responsibility extends far beyond the confines of the Medical Center per se. Physicians practicing medicine in outlying areas of the state depend upon a university library to maintain permanent collections that will provide information of aid in the evaluation of current problems in their patients.

The Medical Center Library has accumulated holdings that make it one of the finest in the Southwest. The Library's permanent collection encompasses approximately 50,000 volumes, covering every area of the medical sciences. Volumes are being added at the rate of approximately 2,100 a year. In order to keep the contemporary journal collection as modern and as pertinent as possible, there are current subscriptions to approximately 1,100 periodicals. These appear in a number of languages and in translations.

Maintenance of an adequate library today is made complex by the appearance of research observations simultaneously in virtually every corner of the world. Further complications arise with the multiplicity of disciplines that should be served by a medical library.

A modern medical center's progress is nurtured by a varied group of interests. Students are the most important commodity of any university, and the primary responsibility of a state university medical center is the education of competent physicians. The physician is the most important person in providing the highest level of patient care, but the Medical Center Library must provide information also for others who assist in this task. Training programs are maintained for graduate students in the basic sciences and for students in such varied fields as nursing, medical technology, physical therapy, etc. Both basic and applied research occupies a position of importance at the Center and requires service from the Library. The list of allied medical sciences grows each year. Physics, chemistry and even mathematics are of ever increasing importance in medicine.

Thus the medical library serves all of the diverse areas of education, patient care and research. There must be permanent and up-to-date collections of textbooks and journals. Also necessary are clinical reports, recent advances in therapy, information as to the distribution of diseases, and the recent concepts in diagnosis and management of specific disease problems.

The Library offers every cooperation within its scope to all practicing physicians. Unfortunately, there is no reference service, but books, with the exception of reserve items, can be obtained by any physician on an inter-library loan obtained through a local public library. Inquiries by state physicians and medical scientists are welcomed.

There is no doubt that the University possesses a truly fine medical library. Such a library is but a catalogued accumulation of ideas and experiences, which achieve significance only when integrated into the human mind. A library without readers is as barren and as uninspiring as a classroom without students.

Mark R Everett

BIOLOGIC AMINES

Their Role in the Transmission of Nerve Impulses in the Central Nervous System

JOHN H. GOGERTY, Ph.D.

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ALTHOUGH the nature of the processes causing transmission of impulses from one neuron to the next in the peripheral nervous system has been relatively well delineated, such has not been the case with the central nervous system. In fact, previous to 1946, the general theory proposed for synaptic transmission of impulses in the central nervous system was that the electrical currents generated in presynaptic nerve endings were sufficient to elicit electrical changes in the post-synaptic membrane, thus causing excitation of the post-synaptic neuron. However, relatively recent evidence accumulated utilizing techniques for recording from within or in close proximity to the neuronal cell has indicated that transmission across central synapses occurs not by the spread of electrical currents, but via specific chemical substances which presynaptic nerve impulses cause to be liberated from the presynaptic nerve endings.[1,2,3,4,5,6,7] These substances then alter in some unknown fashion the ionic permeability of the post-synaptic membrane, thus allowing specific ionic fluxes to occur across this membrane. As shown by Hodgkin and later more completely elucidated by other investigators,[9,10] these ionic fluxes will initiate electrical currents which cause transient depolarization or hyperpolarization of the post-synaptic membrane producing respectively an "excitatory" or "inhibitory" action by the transmitter substance.

At ganglionic sites in the autonomic nervous system, it has been adequately demonstrated that acetylcholine is the chemical substance synthesized in preganglionic nerve endings and, upon arrival of a presynaptic nerve impulse at these nerve terminals, this substance is released to cause stimulation (i.e., depolarization) of the post-synaptic cell.[11,12] Although it is now generally believed that synaptic transmission in the central nervous system is also via chemical mediators, the identification of and necessary supporting data (see below) for the responsible substances have not been as thoroughly detailed as for the transmitters in the peripheral nervous system.

In order to be considered as a chemical mediator of nerve impulses, it is generally accepted that a substance must fulfill certain criteria, such as:

(1) its synthesis from a precursor substance should be at a sufficient rate to correspond to the maximum number of impulses that can travel over the presynaptic

nerve in a given time, in order to prevent "fatiguability" of the system;

(2) its rate of metabolism should be rapid enough so that the amount of mediator released by one nerve impulse can be metabolized over a time period corresponding with the refractory period of the postsynaptic membrane;

(3) its localization should be restricted to certain neuronal areas; and

(4) injection of the proposed mediator substance to the synaptic area under examination should produce an effect similar to that produced by electrical stimulation of the presynaptic fiber.

As mentioned earlier, acetylcholine appears to fulfill these criteria in the peripheral nervous system and evidence accumulated over the last few years indicates that this substance probably serves as one of the chemical mediators in the spinal cord. [1, 4, 13, 14, 15, 16, 17, 18]

That acetylcholine does not represent the *only* mediator in the central nervous system is indicated by the work of Feldberg,[4,13] Crossland,[19] and Eccles.[15,20] Feldberg and coworkers showed, through chemical analysis of various areas of the cerebrospinal axis, that many areas contained sufficient concentrations of acetylcholine, its precursors, and the enzymes necessary for its metabolism to account for the possibility that acetylcholine does act as a mediator in these areas. However, they also found that there were many areas which were characterized by low acetylcholine content and correspondingly low choline acetylase (i.e., the enzyme necessary for the synthesis of acetylcholine) activity, and concluded from this that transmission of nerve impulses from these acetylcholine-poor neurones would be non-cholinergic in nature.

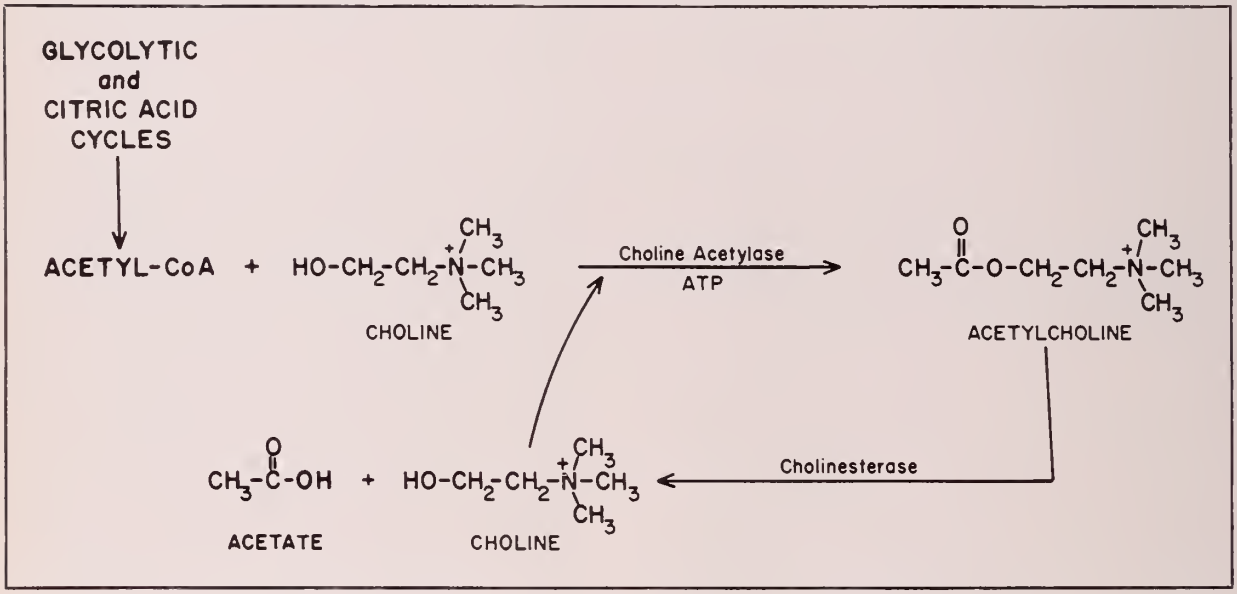
The nature of these non-cholinergic transmitters remains to be determined. However, investigations into this problem during the past five years have presented some interesting results and brought about some provocative theories. For instance, it has been demonstrated that norepinephrine and 3-hydroxytyramine, substances known to be synthesized in peripheral nerve endings, are present in extracts of various portions of the central nervous system.[21, 22, 23, 24] In addition, 5-hydroxytryptamine (serotonin), shown to be present in the enterochromaffin cells of the gastro-intestinal tract[25] and in sympathetic ganglia,[26] and gamma-aminobutyric acid, which has not as yet been shown to have a counterpart in peripheral tissues, have also been found in extracts of the central nervous system.[26, 27, 28, 29, 30, 31, 32, 33] However, in order that these substances can be considered as mediators of nerve impulses in the central nervous system, they should fulfill most, if not all, of the criteria outlined above.

Following identification of these substances in extracts of the central nervous system, an attempt at precise localization was carried out and it was found that norepinephrine, 3-hydroxytyramine, and 5-hydroxytryptamine are all highly concentrated in the brain stem and hypothalamus.[21, 23, 26, 34] 3-Hydroxytyramine is also found in high concentrations in the basal ganglia,[24,35] and 5-hydroxytryptamine is concentrated in the rhinencephalon, or limbic system.[34,36] Furthermore, the precursor substances and the enzymes necessary for the synthesis of these biological amines have also been found in brain extracts, all demonstrating approximate localizations to those of the amines.[26,34,37] It has also been found that the enzymes necessary for the destruction of the biological amines are present in brain, although in this case their distribution is fairly ubiquitous. With regard to gamma-aminobutyric acid (GABA), the highest concentrations have been found in the substantia nigra, dentate nucleus, and general diencephalic region, while smaller amounts have been found in the pons and medulla.[38] The concentration of GABA in the cerebral cortex is intermediate between these two values, a point which deserves special consideration since a great deal of theory has been attached to data obtained by local application of GABA to the cerebral cortex.[39,40]

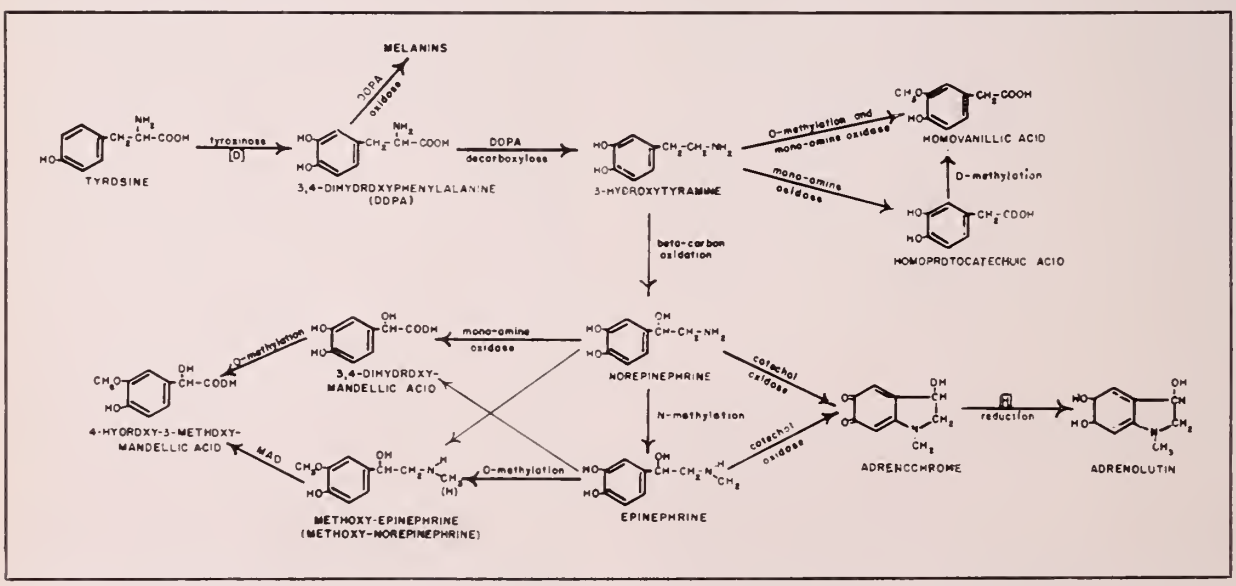
The other prerequisites which a substance must fulfill in order to be classed as a synaptic mediator of nerve impulses (i.e., the correlation of kinetics of metabolism with the

kinetics of ionic flux at synaptic areas, and the duplication of "effects" following direct application of the proposed mediators to the synaptic area in question) have been more difficult to study with regard to the substances in question. Although the pathways of synthesis and destruction of these substances have been clarified to a great extent (see figures), the actual kinetics of these metabolic steps have not been defined to the degree that has been accomplished with acetylcholine.

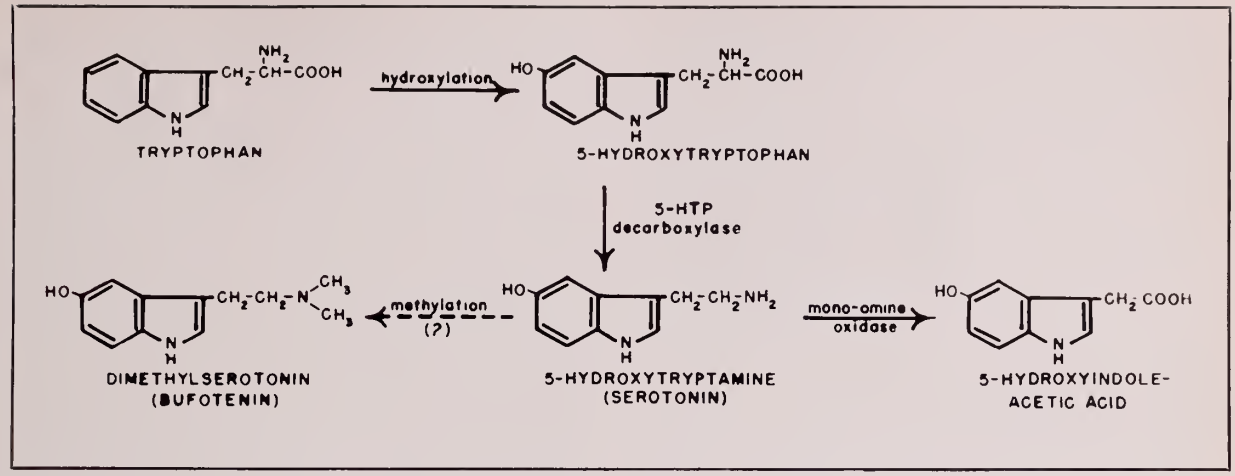
Since GABA does not represent one of the substances with which we are primarily concerned in this paper, it is mentioned only briefly. However, one cannot depreciate from the importance of GABA and its related amino acids in the central nervous system, since they represent the only known substances which are capable of exerting an "inhibitory" action on neuronal activity. Extensive reviews on GABA and its possible role in central nervous system activity have recently appeared and are available to the interested reader.[41,42]



PATHWAY FOR SYNTHESIS AND DESTRUCTION OF ACETYLCHOLINE
Figure 1



PATHWAYS FOR SYNTHESIS AND DESTRUCTION OF 3-HYDROXYTYRAMINE AND NOREPINEPHRINE
Figure 2



PATHWAY FOR SYNTHESIS AND DESTRUCTION OF 5-HYDROXYTRYPTAMINE
Figure 3

With regard to norepinephrine, the primary pathway of synthesis is, as indicated in figure 2, probably via beta-carbon oxidation of 3-hydroxytyramine following decarboxylation from 3,4-dihydroxyphenylalanine (DOPA). Another pathway of formation of norepinephrine which has been shown to occur in animals is that of decarboxylation of 3,4-dihydroxyphenylserine. Although very little definitive work has appeared to date on either of these metabolic pathways, it appears that the main route of formation of norepinephrine is through the formation of 3-hydroxytyramine.[43] The metabolic step concerned with synthesis of norepinephrine from 3-hydroxytyramine is not well understood, and its complete definition would provide a major advance in solving many of the problems presented to investigators in this field.

If norepinephrine is to be considered as having a role in the brain as important as it obviously has in the periphery, the pathways of destruction of this substance should also be defined. In this regard, a great deal of effort has been expended in recent years attempting to clarify what has become a very complex problem. Previous to 1958, the predominant theory was that the important enzyme system responsible for norepinephrine metabolism was monoamine oxidase. However, a large body of evidence existed which did not appear to be in accord with this concept[44,45,46] and, in 1958, Axelrod and coworkers[47,48] demonstrated an enzyme system which appeared to be much more directly concerned with norepinephrine metabolism than was monoamine oxidase. The enzyme system was termed O-methyltransferase by these investigators because of its ability to methylate norepinephrine at the 3-hydroxy position, with consequent inactivation of the parent compound. The kinetics of this system have not been completely delineated, a point which must be considered before proper interpretation of the role of norepinephrine in the central nervous system can be made.

The precursor to norepinephrine, a 3-hydroxytyramine, is, as already mentioned, also a possible transmitter substance within the central nervous system. The possibility that this substance does not have a role in itself but merely acts as a precursor to norepinephrine can hardly be ascribed to since 3-hydroxytyramine has been found in high concentrations in areas which have relatively little norepinephrine (e.g., the basal ganglia). In fact, the possibility might be considered that the important substance in this metabolic scheme is indeed 3-hydroxytyramine, with norepinephrine simply serving as an alternate pathway of metabolism of this substance. The primary route of destruction of 3-hydroxytyramine is via the enzyme monoamine oxidase. In this respect, 3-hydroxytyramine represents an excellent substrate for the enzyme and, thus, the rate of metabolism of this substance can be presumed to be quite rapid although, again, the kinetics of this reaction have not been demonstrated definitely.

As indicated in figure 3, the principal pathways of synthesis and destruction of 5-hydroxytryptamine are relatively clear-cut as compared to those of the "catecholamines" (e.g., norepinephrine and 3-hydroxytyramine). Following the discovery of the natural occurrence of 5-hydroxytryptamine in mammalian organisms, it was shown that formation of this substance resulted from hydroxylation of the amino acid tryptophan followed by decarboxylation of the resultant 5-hydroxytryptophan. 5-Hydroxyindole formation is considered to be a minor pathway of tryptophan metabolism; therefore, the hydroxylation of tryptophan represents the rate-limiting step in the biosynthesis of 5-hydroxytryptamine. On the other hand, the conversion of 5-hydroxytryptophan to its amine occurs very rapidly in most central nervous system areas where 5-hydroxytryptamine is concentrated (e.g., hypothalamus, septum, caudate nucleus).[49,50]

5-Hydroxytryptamine represents one of the better substrates for monoamine oxidase and, consequently, is metabolized chiefly through this enzyme system.[51] The kinetics of 5-hydroxytryptamine metabolism have been clarified to a certain extent, although not completely. Udenfriend, et al. provided data showing that 5-hydroxytryptamine in brain has a half-life of approximately 1-3 hours.[34,50] Although this figure does not appear to be in accord with the theory that rapid synthesis and degradation of a mediator are necessary for repetitive neuronal activity to be carried on, Crossland[19,42] mentions other factors (e.g., diffusion away from the site of release) which must be taken into consideration when discussing possible mediator substances.

Recently, other pathways of metabolism of 5-hydroxytryptamine have been demonstrated. McIsaac and Page[52] have shown that 5-hydroxytryptamine is converted to N-acetyl-5-hydroxytryptamine *in vivo*. Axelrod, et al.[53] followed this report with evidence that, following formation of N-acetyl-5-hydroxytryptamine, an enzyme system termed hydroxyindole-O-methyltransferase acts on the metabolite described by McIsaac and Page to form the hormone melatonin (3-methoxy-N-acetyltryptamine). Axelrod and coworkers also mentioned that this enzyme system would act directly on 5-hydroxytryptamine.

Of what importance these latter enzyme systems are as compared to that of monoamine oxidase in the metabolism of 5-hydroxytryptamine in the human is a problem that remains to be investigated. However, it is important that one take into consideration all of the possible pathways of metabolism of a postulated transmitter substance, since these will determine the rate at which the "transmitter" is destroyed following its release from the presynaptic nerve ending, and may also lead to some interesting considerations regarding altered metabolic pathways and formation of new "active substances" following the use of certain enzyme inhibitors.

Although the discovery of the natural occurrence of norepinephrine, 3-hydroxytyramine and 5-hydroxytryptamine brought about a number of proposals regarding the possible roles of these substances in the brain,[54,55] it remained for Shore, et al.,[56] who were investigating the pharmacologic actions of the tranquilizing agent reserpine, to provide some foundation for these theories. These workers noted that the effects observed following injection of reserpine into mice could be duplicated by the injection of 5-hydroxytryptamine (e.g., depression of motor activity, miosis, fall in body temperature, potentiation of hexobarbital- or ethanol-induced hypnosis). Further investigation of the relationship between reserpine and 5-hydroxytryptamine brought out the fact that reserpine causes a marked increase in the excretion of the urinary metabolite of serotonin, 5-hydroxyindole acetic acid. Since the high concentrations of 5-hydroxytryptamine in the brain implies that this substance is in some way protected from enzymatic destruction, Shore and coworkers suggested that reserpine was exerting its action through release of 5-hydroxytryptamine from its normally bound form, thus allowing the 5-hydroxytryptamine to act on "sensitive receptors," with subsequent metabolism via monoamine oxidase.

Later work provided evidence that reserpine not only released 5-hydroxytryptamine

in the brain but also released norepinephrine and 3-hydroxytyramine from their respective areas of concentration.[57,58]

Regarding the brain concentrations of acetylcholine, reserpine has been shown to produce a significant increase of this substance in all areas of the brain with the exception of the hippocampus, where a decrease in concentration of acetylcholine was noted.[59] Although this finding has not been dealt with in other reviews, it should be considered when one discusses the possible mechanisms through which reserpine exerts its pharmacologic effect. No studies have been reported to date on possible alterations in brain concentration of GABA with reserpine.

Concerning the question of the roles of these substances in the brain, the original reports of Shore, et al., and the more recent data indicating an effect of reserpine on catecholamine concentration in the brain, allow two possible interpretations: (1) that the release and subsequent action of 5-hydroxytryptamine on central nervous system "receptors" is responsible for the predominant parasympathomimetic effects observed with reserpine, or (2) that the release by reserpine of the stored "biologic amines" and their subsequent enzymatic destruction eliminates an "antiparasympathetic" system (e.g., sympathetic) by removing the substances necessary for maintenance of normal function of this system. The latter would in effect result in "uninhibited" parasympathetic activity, which is apparently cologic actions of reserpine

As mentioned previously, the demonstration by Shore, et al. (op. cit.) that injection of 5-hydroxytryptamine produced pharmacologic activity similar to that obtained by injection of reserpine suggested to these investigators that 5-hydroxytryptamine may serve as a "mediator" within the central parasympathetic nervous system, or as a "modulator" of the activity of the central sympathetic nervous system. Included in this theory was the thought that norepinephrine in the central nervous system serves the same function as in the periphery (i.e., mediation of sympathetic nervous system activity). However, the data demonstrating that reserpine causes release of not only 5-hydroxytryptamine but also norepinephrine and 3-hydroxytyramine from their brain storage sites provides evidence sufficient to question the original theory of Shore and Brodie, and has led in some quarters to the belief that the action of reserpine on central nervous system biologic amines is only indirectly related, if at all, to the pharmacologic actions of reserpine.

Although this controversy has not been resolved to date, evidence has accumulated in recent years to indicate that these normally occurring biologic amines may indeed have a role in brain function but that consideration must be given not only to the biochemical aspects of these systems but, also, to the neuroanatomic and neurophysiologic correlates which must be incorporated for proper interpretation of the role of these amines as based on the pharmacologic actions of reserpine and closely related substances.

Following the original observations and postulates of Shore, et al., it was found that systemic injections of 5-hydroxytryptamine, even in extremely high doses, produced little, if any, increase in the brain concentrations of this substance.[49] If, however, the precursor of 5-hydroxytryptamine (i.e., 5-hydroxytryptophan) was injected into the systemic circulation, an increase in the brain concentrations of 5-hydroxytryptamine could be achieved. In addition, it was noted that injection of 5-hydroxytryptophan (5-HTP) produced behavioral excitation of the animal dominated by signs of sympathetic stimulation, and not the behavioral depression characterized by parasympathetic activity as seen with reserpine. Furthermore, if the injection of 5-HTP was preceded by an injection of a substance which inhibits monoamine oxidase (i.e., the enzyme believed to be primarily responsible for the metabolism of 5-hydroxytryptamine), the dose required of 5-HTP to produce behavioral excitation could be reduced to one-tenth the original dose, and the behavioral excitation and stimulation of the sympathetic nervous system were much more prominent.[49,50]

Other investigators found that injection of norepinephrine caused very little, if any,

increase in the brain concentrations of this substance. However, if 3-hydroxytyramine or dihydroxyphenylalanine (i.e., the precursor to 3-hydroxytyramine and norepinephrine; see metabolism chart) was injected, an increase in the brain concentrations of both 3-hydroxytyramine and norepinephrine was observed, together with behavioral excitation of the animal and sympathetic stimulation. Again, if the injection of either 3-hydroxytyramine or dihydroxyphenylalanine was preceded by an injection of monoamine oxidase inhibitor, the dose of either substance required to produce the behavioral effects was reduced and the stimulation was accentuated.[23,60,61]

Based on this latter data, the second interpretation of the role of these biogenic amines in the central nervous system appears to be more feasible than the one originally proposed by Shore and Brodie. On the basis of the evidence accumulated to date, one might assume that norepinephrine and 3-hydroxytyramine in the central nervous system have some intimate role in the regulation of the sympathetic portion of the central nervous system. With regard to 5-hydroxytryptamine, the picture is somewhat more complex. Available data indicate that this substance also causes stimulation of the sympathetic portion of the central nervous system. Recent evidence concerning the effects of 5-hydroxytryptamine in the peripheral nervous system[62,63] suggests a possible "modulator" role in the cervical sympathetic ganglion. Whether this substance serves a similar role in the central nervous system (i.e., a modulator of parasympathetic activity) or whether it represents a third substance in the sympathetic portion of the central nervous system (i.e., in addition to 3-hydroxytyramine and norepinephrine), or whether these two "different" roles are actually one and the same thing is yet to be learned.

Woolley has proposed an interesting theory for the role of 5-hydroxytryptamine in the central nervous system which, unlike the other postulates, does not link 5-hydroxytryptamine directly to the transmission of nerve impulses.[64] Rather, Woolley suggests, on the basis of evidence obtained utilizing tissue cultures of oligodendroglial cells, that 5-hydroxytryptamine may act to control the continuous pulsations of the oligodendroglial cells and thereby regulate the proposed function of these structures, that being one of transporting nutrients from the capillaries to the neurons. Although this theory presents a different approach to studies of the role of substances normally found in the central nervous system, one hesitates to consider this as the most important role of 5-hydroxytryptamine in the brain since, if it were, one would expect to find the 5-hydroxytryptamine more ubiquitously distributed in the central nervous system instead of the well-documented relatively limited distribution in the brain stem, hypothalamus, and rhinencephalon.

With regard to the distribution of the various biologic amines in the brain, this becomes an important consideration when attempting to discuss the actions of a pharmacologic agent which alters the concentration of one or more of the brain amines. For instance, based on the information presented, it is interesting to consider the various pharmacologic actions of reserpine, chlorpromazine, and the monoamine oxidase inhibitors with regard to the neuroanatomic systems discussed.

Reserpine, as stated previously, is known to evoke parasympathetic activity when administered to animals or man. One of the more troublesome side effects which appears with reserpine therapy in humans is the incidence of a parkinsonian-like state.[65] Although it is general knowledge that anticholinergic substances (e.g., Atropine) are excellent antiparkinsonian agents and, conversely, one might feel that it would be natural to expect a pharmacologic agent provoking central parasympathetic activity to produce a parkinsonian-like state, the mechanisms responsible for these two diametrically opposed actions are not at all clear-cut. However, it is interesting to speculate that the parkinsonian-like state induced by reserpine may be due to the depletion of 3-hydroxytyramine from the basal ganglia. In fact, one group of investigators[66] has indeed utilized this relationship as a theory for the basal ganglia-like defect produced by reser-

pine, and has suggested that 3-hydroxytyramine may play an intimate role in the normal functioning of the basal ganglia.[35] Even at this, one cannot say at the present time that depletion of amines in other areas of the brain by reserpine does not aid in the development of the parkinsonian state, since the neuronal interactions between the rhinencephalon and the pyramidal and extrapyramidal system have not as yet been established.** That alterations of normal activity in the brain stem may lend to the production of a parkinsonian--like state is well-known on the basis of neurophysiologic studies demonstrating production of parkinsonian-like tremors in monkeys by stimulation and ablation of various areas in the brain stem.[67,68]

With regard to the calming action of reserpine in highly agitated persons, it is now generally accepted that the rhinencephalon in man is an area associated with the regulation of emotional levels. It is also known that reserpine produces a profound change in the electrical activity of the limbic system (rhinencephalon).[70] Whether it is possible to relate the alterations in neuronal activity in parts of the rhinecephalon to depletion of the 5-hydroxytryptamine in this area or to a change in the acetylcholine concentration, and whether these phenomena are related to the calming effect of reserpine in the agitated patient are problems that remain to be solved. Again, the effect of reserpine on the biologic amine level in the hypothalamus and brain stem may also be related to the "tranquilizing" effect of this agent.

Reserpine has also been utilized to a large extent in recent years in the treatment of hypertensive states, and much of the literature on this subject suggests that this depressor effect is due primarily to the central action of the agent. Although the action of reserpine on the brain may aid in the treatment of the hypertensive patient, is now considered that the peripheral depletion of adrenergic mediator (similar to that produced by reserpine in the central nervous system) is probably of more importance in producing the depressor effect. However, as mentioned, the central actions of the drug may augment the peripheral actions, in addition to lending a calming effect on the hypertensive individual.

Although it is relatively easy to speculate on the mechanisms of the various reserpine-induced states, the problem becomes more difficult when one approaches the possible mechanisms of chlorpromazine action. It has been amply demonstrated that chlorpromazine has a peripheral anti-adrenergic action and, if one might be allowed to extrapolate this action to the central nervous system, it might be speculated that this action of chlorpromazine would produce, in the end, an effect similar to that of reserpine, although the basic mechanisms behind the "anti-adrenergic" effects of these two agents would be quite different. The parkinsonian-like state induced by chlorpromazine may be due to a competitive inhibition at the receptor level of 3-hydroxytyramine in the basal ganglia and/or an inhibition of amine activity in the brain stem.

On the other side of the pharmacologic spectrum, the monoamine oxidase inhibitors are central nervous system stimulants which, instead of antagonizing biologic amine activity in the brain, act to potentiate the actions of the naturally occurring substances by preventing their metabolism. Although these agents are relatively new additions to the field of pharmacology and the physician's armamentarium, the concepts regarding their mechanisms of action and the correlation of this action with the pharmacologic effects produced by the agents are somewhat easier to integrate than with chlorpromazine. For instance, the mood elevation observed with these compounds in depressed patients may possibly be correlated with an increase in the concentration of 5-hydroxytryptamine in the rhinencephalon. There is considerable discussion at the present time regarding the question of whether the pharmacologic and behavioral effects produced by the monoamine oxidase inhibitors are correlated with an increase in the brain concentrations of norepinephrine or the rise in concentration of 5-hydroxytryptamine.[71,72] At present, this problem has not been re-

**While this paper was in preparation, Adey, et al.[69] presented data indicating that the neuronal interactions between the rhinencephalon and basal ganglion may indeed have an influence on tremors induced in monkeys by stimulation of the brain stem.

solved but this may be due to the fact that the pharmacologic behavioral studies have been very gross measurements and perhaps more definitive measurements are required to establish a correlation between the rate of increase of biologic amine level in the brain and the onset of physiologic changes.

In this review no attempt has been made to present data on all of the naturally occurring substances in the central nervous system. For instance, histamine and adenosinetriphosphate have also been found in extracts of brain tissue and have been considered by some investigators[42] to have roles in regulating central nervous system activity. An attempt has only been made to present a basic concept regarding a controversial problem in this field. It may well be that once an integration is made between the biochemic localization of various substances in the central nervous system and the neuronal interactions of the brain stem, hypothalamus, rhinencephalon, basal ganglia, and cortical structures, many of the problems involving mechanism of drug action on the central nervous system will fall into place and roles will be assigned the now-controversial biologic amines of the brain.

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ABSTRACTS

The Influence of Boundary Conditions on The Amplitude of R and Other Accession Potentials in Leads from the Ventricular Wall

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Circulation Research, 8: 82-87, January 1960

The effects produced by alterations in the boundary conditions at the epicardial and endocardial surfaces on ventricular accession potentials in the heart in situ were studied in 13 dogs. Conductivity of the boundary media at the two surfaces was changed by opening and closing the chest, placing a layer of saline-moistened gauze over the heart's surface, filling the thorax with saline-Hartman's solution, and injecting carbon dioxide into the ventricular cavities after intramural electrodes had been positioned. Effects on tangential components were studied after extrasystolic stimulation of the contralateral ventricle and after right bundle branch block.

The amplitude of R at all points in the ventricular wall from endocardium to epicardium was decreased by 70 to 100 per cent by any measure which increased the conductivity of the medium surrounding the heart or which decreased the conductivity of the medium in the ventricular cavity. At times the R became a notch on the downstroke of S, particularly in the inner one-half of the wall. Decreases in the amplitude of R of tangential components appeared to be less than those obtained for radial components. Measurements at the surface of the volume conductor were not made, but the potential at F was halved by filling the open chest with saline.

The progression in the amplitude of R from the endocardial to the epicardial surface of the ventricle encountered experimentally is effected, at least in part, by the different conductivities of intracavity blood, myocardium, and the medium surrounding the heart. Closing the chest and evacuating the pneumothorax after positioning the electrodes presumably gave intraventricular potentials approximating those that exist normally.

It is clear that attempts to evaluate intracardiac accession potentials must take into consideration the influence of the conductivities of the boundary media interior and exterior to the wall of the heart.

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Effect of N-(1-Methyl-2,3,di-p-chlorophenylpropyl) Maleamic Acid (Benzmalecene) on Serum Lipids and Lipoproteins

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Administration of Benzmalecene alters serum lipids as follows: 1) decreases serum total and esterified cholesterol concentrations; 2) decreases cholesterol and phospholipid content of α (density $>$ 1.063 g/ml) and β (density $>$ 1.019 $<$ 1.063 g/ml) lipoproteins; 3) increases serum phospholipid and triglyceride concentrations; 4) increases, both absolutely and relatively, cholesterol and phospholipid content of lipoproteins of density $<$ 1.019 g/ml; and, 5) decreases C/P ratio in whole serum and in α and β lipoproteins. The compound possesses extraordinary lipid-altering properties which warrant further investigation. However, the increase in low density lipoprotein lipids may be an undesirable effect since low density lipoproteins may play a role in atherogenesis.

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Neonatal Pediatrics
Part V: The Role of Injection

HARRIS D. RILEY, Jr.*

American Practitioner and Digest of Treatment 11: 465-470, June 1960

The need for a concentrated attack to lower neonatal mortality is quite evident. More deaths occur during the first four weeks of life than in the entire period from one month through 14 years. In 1955, in the United States the neonatal (first 28 days of life) mortality rate was 19.1 per 1000 live births whereas the rate for the next 11 months was 7.3 per 1000 live births and only 0.7 per 1000 live births from ages one through 14 years. In addition, probably more than 500,000 fetal deaths occur annually. In reviewing available data on causes of death in this age period in order to plan such an attack it is readily apparent in any carefully studied series of neonatal deaths, those due to infection make up a significant percentage. The exact frequency with which infection is a primary cause of neonatal mortality is not clear, the incidence in various series based on postmortem findings ranging from 10 to 15 per cent. Infection is a contributory cause of death in an even higher percentage. However, its importance is often overlooked especially in hospitals in which few autopsies on fetal and neonatal deaths are performed. This means that infection is often not diagnosed while the infant is alive. All of the problems relating to infection are even more serious in the premature infant.

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Quantitation and Morphology of Equine Abortion Virus in Hamsters

D. GORDON SHARP and E. C. BRACKEN*

Virology 10: 419-431, 1960

Infection of hamsters with equine abortion virus results in a fulminating disease that terminates fatally in 18-21 hours. In the latter half of this infection, the plasma and extracts of liver tissue contain particles in large numbers that the authors believe are the virus elementary bodies. By electron microscopy, the particles are round with average diameter of 170mμ; many have a tail of about 50-mμ width and variable length up to 340mμ. They first appear about nine hours after infection and increase rapidly in number to 10 per gram in the terminal stages. The particles appear and increase in parallel with the infectious titer of the tissues involved. Their number is consistent with the frequency of their appearance in electron micrographs of thin tissue sections.

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The Natural History of Hypertension

JAMES A. HAGANS* and ALBERT A. BRUST**

The American Journal of Medicine 28: 905-912, 1960

1. Two hundred and twelve patients with various forms of hypertension were classified according to changes in their optic fundi and the degree of target organ involvement. They were followed up for an average period of four years, the shortest follow-up interval being two years for any one patient. During the period of observation the patients received no antihypertensive drug therapy but were given more general medical treatment as indicated.

2. Those with essential hypertension showed a strikingly different life expectancy, depending upon the presence or absence of sustained uremia.

3. In the absence of sustained uremia, the degree of change in the optic fundi and the severity of other target organ involvement seemed most markedly to influence the patient's life expectancy.

4. Those with elevated diastolic blood pressures, irrespective of the degree of elevation, who manifested benign changes in the optic fundi and no evidence of target organ decompensation enjoyed a life expectancy approximating that of the general population for a similar age group.

5. In view of these findings and the fact that there is often marked lability in the diastolic blood pressures in patients in all stages of severity of essential hypertensive disease, evaluation of drug therapy should be based upon the degree of target organ involvement and optic fundal changes rather than upon the degree of elevation of the diastolic blood pressure.

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Special Articles

How Public Opinion Can Socialize A Profession or Industry

GERALD J. SKIBBINS

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THE POINT of this address is simple: Whatever you want for the future of American medicine, you can have.

Although you now face socialized medicine for the aged, a vicious attack on the pharmaceutical industry, and trade-union agitation for a totally socialized medical practice, I repeat:

> Whatever you want for the future of American medicine, you can have.

The advances in communications theory, in attitude measurement, in social theory, and in the scope of our communications network have given you this option. There is today no hidden or unsolvable problem which prevents organized medicine from achieving its highest goals. None, whatsoever. The American people will render a fair-minded decision on your profession, if they are given *all* the alternatives and enough information.

Instead of presenting statistical information on current public attitudes at this luncheon, it seemed more appropriate that I generalize from the research and illustrate some of the difficult consequences of poor public relations.

It is likely that British experience will be repeated here and that *your* life as a doctor will go something like this first chapter of Philip Auld's book, "Honour A Physician."*

Auld is the pseudonym for a British G. P. who wrote down his actual experiences under ten years of the National Health Service. This was the beginning, in 1948:

"England, 1948—

"Dr. Charles Gatwood started his middle-aged car and backed cautiously through the gate. Pausing to inspect the road, he became aware of Alderman Sydney Carb's untimely presence, hand upraised to signal a desire for converse. He cursed beneath his breath, looked pointedly at his watch and applied the handbrake.

" 'Ah, Doctor, I've been wanting to have a word with you. . .'

" 'Afraid I can't stop, Mr. Carb. . .'

" '*Alderman* Carb, *if* you don't mind!'

"Gatewood grinned. 'I don't mind a bit.'

" The alderman frowned, then allowed his face to clear and passed to the next business. 'What I was going to say was that we've got you in after all.' He neighed triumphantly.

"Gatewood looked puzzled. 'I don't understand. Got me in what?' He switched off the engine.

Given before the Annual Meeting of the Oklahoma State Medical Association, May 3, 1960.

*Hollis and Carter Limited, 25 Ashley Place, London, S.W. 1. England. Permission to quote granted by Philip Auld.

" ' The doctors, I mean. In the Health Service. I didn't think you'd resist for long.'

" 'Oh, I see,' said Gatwood thoughtfully. 'You've got us in. You have a happy way of putting it, Alderman. You make it sound as though we've been trapped.'

" 'I reckon you can say that again!' His snicker was shattered by an explosive cough into Gatwood's face. He recovered his breath and proceeded without apology: 'You doctors have had the public under your thumbs long enough. Now the boot's going to be on the other foot. . . . I was saying to Fred only yesterday—the Mayor, you know—I said to him, I said, Fred, I said, now we can put them clever fellows where they belong, I said. They're going to be paid by the people and they'll be answerable to the people, I said.'

" 'I thought we were always paid by the people. When we were paid, that is. Look here, I'm not sure what you're getting at, with your thumbs and your boots, but you make it all sound very unpleasant. Do you mean we're going to be sorry we entered the National Health Service? Is that what you're looking forward to?'

" 'Now I wouldn't say that, Doctor. No, I wouldn't like to go so far as to say that. No. But there'll be changes, y'know. Bound to be. No use blinking the fact.'

" 'What sort of changes?'

" 'Well, for one thing, the public are going to see to it that you chaps provide the sort of service they want and what's more, when and where they want it. Instead of acting superior to the community as you've always done, now you're an equal part of it.' His eyes gleamed with jubilant anticipation.

" 'You know, I'd always thought we served the community pretty well, on the whole. As for being an equal part of it, very few of the other parts seem to be particularly equal, so I don't know where you intend to fit us in. In any case, I shouldn't push the idea too hard, or we might take you at your word.'

"Carb looked blank. 'How d'you mean, Doctor?'

" 'We might decide to work the same hours as the rest of our equals, for example.'

"The aldermanic brow furrowed horizontally with amazement. 'But your vocation, Doctor! What about your vocation?'

"Gatewood smiled. 'You're the one who wants the changes. If you insist that there's to be nothing to choose between doctors and the rest of the community, you must expect the same sense of vocation as you get from other workers, which is precious dam' little when you see them from my side of the desk. No use blinking the fact, as you say, Alderman.'

"The lower furrows became vertical with annoyance. 'Now then, Doctor, I'm not having you run down the working man. He's . . .'

"Gatewood interrupted him impatiently: 'Nobody's running down the working man. He's usually a good chap, and I like looking after him, but he varies a bit, like everyone else. If you spent a few Monday mornings in my surgery you'd know what I mean. The point is that *he's* fussy about the number of hours *he* works, and *you* apparently want doctors to be the same.'

" 'The working man does a fair day's work for a fair day's pay. He's the wealth of the country, and . . .'

"Gatewood cut in again before the clinches got out of control. 'There's nothing you can tell me about the working man, Alderman. You don't see him with his pants down as I do. At least, I hope not.' "

Britain presents a case history of an association leadership and a profession that lost a public relations war: free medicine lost first, in the attitudes of the British public, next in their own medical society's accepted economic philosophy and finally among the doctors themselves in their own councils. Let's listen in to a local doctor group meeting in 1957 when a doctor strike to force the "Spens" Agreement for higher pay was in the wind—this group would correspond to a county medical society meeting in America. In the text, Dr. Brundle is the

group's liaison with the British Medical Association. Here they are in session in 1957:

"Dr. Suffolk declared: 'The worst thing that could happen would be for the government to cave in and give us more cash. Then we'd never get the boys to fight for changes in the service. I'm only supporting the withdrawal because it gives us an opportunity to start again on a new basis. I wouldn't be prepared to resign on financial grounds alone.'

"Brundle, the BMA man said: 'We are adamant—we shall have Spens or nothing.'

" 'I don't see them coughing up our notion of Spens,' said Suffolk with satisfaction, 'so we've a fair chance of *war* being declared. If it doesn't pan out that way, Mary and I have made up our minds to emigrate. We're thinking of Australia.'

"Farndon said, 'My wife fancies Canada.'

" 'Wait until we've compelled the Government to implement Spens,' Brundle advised them. 'There'll be less talk of emigration when our finances are in a healthier state.'

"Suffolk shook his head. 'No, Horace. We won't be going because of the money. But I'm not getting into an argument with you about it—you've never admitted that there's anything wrong with the service apart from the pay. You'll wait till the capitation fee has destroyed general practice before you admit there's anything wrong with it. The Australians won't have capitation medicine at any price; that's why we're thinking of going there.'

" 'I'm not so sure that a salaried service wouldn't solve most of our difficulties,' remarked Courtham.

"Brundle said severely: 'We will never submit to a salaried service.'

" 'Don't see why not,' said Courtham. 'What have we got to lose?'

" 'Our freedom,' replied Brundle simply.

" 'We've lost that already,' Courtham retorted. 'I'm in favour of going the whole hog. My list is below average—I'd probably get more if we all got the same.'

" 'But you'd have no *scope* to rise above that.'

" 'I've no scope now. My list hasn't changed in three years. And I'd like to knock off at teatime—I've had enough of evening surgeries and night calls.'

" 'G.P.'s can't work office hours,' said Gatwood gloomily.

" 'Why not? The night rota works perfectly well. The only difference'd be that when we're on at night we shouldn't be on during the day too. The evening surgery's an utter farce—why the blazes shouldn't they get up at the right time and attend in the morning?'

"Gatewood said: 'A salaried service would wreck the doctor-patient relationship completely. It's bad enough as it is. We'd have to accept clinical directives from Whitehall. There'd be no free choice of any sort.'

" 'So what? I'd rather accept directives from Whitehall than from the insolent scum who order me around at the moment. I'd give a lot to be able to tell some of my regulars what I think of 'em without any fears about my income. Think of it—no arguments about prescriptions and certificates! I'd give 'em time off! What this country needs is a spell of regimental doctoring—then we might be able to pay our way.'

" 'It'd be a pity to wish regimental doctoring onto the decent types merely to control the rats,' said Gatwood.

" 'The decent ones'd be better off—we'd be able to give them more time. It's the others who're making doctors emigrate.'

"It became apparent that playing with words in an attempt to dispose of the legality and durability of the Spens obligation had served only to incense the profession, and the Government were obliged to announce a new device in the shape of a Royal Commission to decide the appropriate level of doctors' remuneration. The resentment of the profession reached unprecedented heights. The BMA clung more desperately than ever to Spens.

" 'The Royal Commission is a trick to replace Spens by something cheaper!' Brundle raved. 'The profession is not represented on it. The Government will only implement its

findings if they're low enough. We must not give evidence—once we have discussed an alternative to Spens we have agreed that Spens is no longer binding.'

"The announcement of a five per cent interim award pending the report of the Commission was initially condemned as an affront. But even five per cent was better than nothing, and was too tantalizing to be spurned for long. By the beginning of the holiday season the medical profession had snatched at it and meekly, albeit at times noisily, agreed to cooperate with the Royal Commission.

"A wave of disgust and defeatism swept through the doctors of Britain, but Brundle unquestioningly adopted the new BMA policy. 'We are preparing incontrovertible evidence for the Royal Commission,' he told the Group. 'We shall insist on Spens in full.'

"The members moaned. Ibworth said: 'Two weeks ago you told us that our entire future depended on having *nothing* to do with the Royal Commission. Now you're preparing evidence *for* it. I simply don't know how you dare to show your face in public after your latest somersault.'

" 'Let's demand a Royal Commission of doctors to decide the pay of Ministers of Health,' suggested Voce.

"Ibworth continued, 'They're going to decide whereabouts in the social scale we deserve to be put. We'll find ourselves just above building labourers and below sanitary inspectors. Then there'll be a big BMA meeting in London and we'll cave in as usual, after the stock wavering and vocation speeches from the Reds. And you'll come up smiling with a bunch of reasons why Spens could no longer be operated.'

" 'No, Terence, Spens is our sheet-anchor.'

" 'Look, Horace,' urged Ibworth. 'Try to be realistic, just for once. If the Government had the slightest intention of having anything more to do with Spens d'you think they'd have bothered to appoint a Royal Commission? Spens is as dead as the Dodo.'

"Farndon said: 'It's quite obvious that if we're ever going to get a square deal we've got to take the NHS out of the hands of the party politicians. They'll never keep a promise unless there's an election at stake, and we'll never fight them successfully until we swallow our pride and come down to trade-union level. It's a damned shame—five minutes of real leadership and we'd have won.'

" 'I've had enough of it all,' said Ibworth. 'I shall retire next July, as soon as I can draw my superannuation.'

" 'You'll be too young,' Brundle pointed out.

" 'If I can't organize a certificate for myself for a change I've learnt nothing in all these years. I was prepared to hang on as long as there was some hope of improving the service, but now I'll get out as soon as I can. Not that I can afford to retire, but I may be able to get some part-time clinic work to help out.'

" 'You'll have your practice compensation,' Brundle reminded him.

"Ibworth said bitterly: 'My compensation's worth a third of what it was. That's another damned swindle the BMA let us in for. You and your pals have made a pretty thorough mess of us, Horace: diminishing capital, diminishing income, diminishing status, and a job we no longer enjoy. You've a great deal to answer for.'

" 'The youngsters are emigrating in droves,' said Gatwood. 'My assistant told me this evening that he's decided to try his luck in New Zealand. He's sailing in a month, too. I remember you telling us in 1948, Brundle, that we'd be helping the young men to get established in practice if we gave up the right to buy and sell goodwill. I know you'd told us the opposite a week or two earlier, but that was your last word on the subject. *What* a damned trick it turned out to be! The boys find it ten times as difficult to get into practice now as it was before 1948. Young Binckham's applied for scores of vacancies, without any luck. In the old days he could have walked into the first practice he fancied.'

" 'But, he'd have to put himself in debt,' said Brundle.

" 'He'd be earning enough to pay it off.' re-

torted Gatwood. 'That sort of debt does no harm—it's no worse than buying a house on a mortgage; it gives a man something to work for. Anyhow, this Royal Commission business has convinced him that there's *no security in G.P.* in this country, so he's really rather pleased he hasn't planted any roots. I think he'd have emigrated in any case—dishing out benefits isn't his idea of a doctor's work . .' ."

For you young members of the senior class at the University of Oklahoma School of Medicine, let me give you some sense of what faces your compatriots in England. Here is a hiring interview as described by Philip Auld in his book:

"Dr. Gatwood interviewed four prospective assistants before Dr. Arthur Rodley presented the requisite combination of military service, adequate post-graduate hospital experience, intelligible familiarity with the English language, clean finger-nails and evidence of a recent shave. The young man continued to impress him favourably as the interview progressed, betraying an unusual interest in the work of the practice and revealing no curiosity regarding the prospect of off-duty time.

" 'Are you married?' asked Gatwood.

" 'Yes, sir.'

" 'Any offspring?'

" 'One confirmed; one possible.' Rodley had been a fighter pilot.

" 'Good. The job's yours. You've done no G.P., I take it.'

" 'No, none. I must admit we get a pretty jaundiced view of it from the hospital angle, but I've always wanted to be a G.P. and I hope one can avoid some of the things that seem to be going on.' Rodley spoke with diffidence, feeling his way.

" 'What sort of things?

" 'Well, for example, a lot of G.P.s seem to send patients up without even bothering to examine them.'

"There's nothing to stop you from examining them if you want to. It's a bit of an effort sometimes, when you're packed out with rubbish, but there's certainly no excuse for sending anyone to a hospital without working out the case first.'

" 'What's the patient's attitude like, generally?'

" 'Mostly quite reasonable. A few of them take advantage of the fact that there's *no penalty for bad behaviour*, but it's up to us to keep them in their place. Some of them can't resist trying out their little dodges, like buttonholing one in the street for precriptions or alfresco consultations, but if you treat 'em like dirt they don't try it again. You'll have no trouble with the majority, but the NHS has made some patients pretty cocky, and they're the ones who've got the Regulations buttoned up, so its safest to *regard every patient as a potential enemy*—then you're less likely to drop any bricks.'

" 'That sounds a trifle grim!'

" 'I probably make it sound worse than it really is. It's only a small minority who make life unpleasant, but unfortunately they're the devils who take up most of our time. You'll soon get to know them—my notes are quite revealing, you'll find.'

" 'Good.'

" 'The problem is to find a way of practising decent medicine in spite of the NHS. The surgeries are inundated with tripe—head colds and so on, and you have to be on your toes to pick out the people who might have something amiss. We see so many who are just wasting our time that it's tempting to treat everything as a triviality.'

" 'Your blood'll boil over some of the trifles you're commanded to visit, especially when the calls come in late. It's another reason why G.P.s let their work go to hell—they're in a state of chronic fury about unnecessary late calls. I get rid of patients if they make a habit of it. Everyone knows by now that they should send before 10 a.m., but they also know that they can't be penalized for sending late and that *we* can be *blitzed* for refusing to go. The usual reason is that the mothers don't get up in time—a fortnight in an industrial practice would convince even Karl Marx that the idle rich are far outnumbered by the idle poor.' "

Has anyone read this ten-year record of life as a doctor under NHS? (one hand was raised)

I leave you to draw your own conclusions on whether the attitudes and beliefs of your neighbors about the gradual socialization of our country as well as of medical care have anything to do with your future in medicine. I submit that the attitude research evidence that was produced in our recent study, The Public Relations of Medicine, shows that here in America you need not, but certainly *could be* socialized.

Broad changes in a nation's character sift through all its institutions. One by one, the forces of opposition to socialization are isolated for attack and discredit in society.

In the last thirty, forty years
You saw industry pilloried by government.
Where were you?

You saw agriculture go under bureaucratic rule and production control.
Where were you?

You saw billions each year being thrown into countries who hate us abroad?
Where were you?

You saw your neighbors begging for Federal pork-barrel projects for your town.
Where were you?

You saw battles in your own
State legislature on issues of freedom.
Now you see your own people to whom
You owe so much—The pharmaceutical manufacturers getting defamed in every Paper in the country, but
Where are you?

Personally, I wish this was a world in which a man could stick to his last and conduct his profession unhampered but it is not. Over the years, we have permitted ourselves to silently enjoy the sight of someone else's ox being gored. Let's not be surprised when our turn comes. It has come for medicine.

Gloomy as the British record and our drift after it seems, let's concentrate on the main theme that medical practice in America *can* remain *free*, if we so desire.

How can this be done?

The method is rational, practical and sure. A control concept for this effort would be as follows:

Step 1—Measure public attitudes that now exist among the people in your state or your town or your practice. This is the universe you wish to influence. In other words, take a hard, cold look at yourselves as the others in your life see you.

Step 2—Decide which changes in public attitudes are needed for a "cure." What needs correcting or improving in the relationship or in the way you practice?

Step 3—Decide on the communicating or action program which will best effect each change needed.

Step 4—Test it to see whether it actually works with people.

Step 5—Apply it with ample resources and personal support.

Step 6—Remeasure to find out whether you in fact effected any change.

Step 7—Continue to
Decide on strategy
Test
Act
Measure.

And that is the technique established in the literature and in attitude research. It works. And for the sake of the freedom of medicine in this country, I hope it gets applied by everyone in the profession, individually in each doctor's practice and by groups such as this. If it does not sound new or world-shaking to you, then explain why it is not being used on the scale necessary to prevent socialized medicine in America.

In applying this control concept, we'll have to face some unpleasant facts:

1. The opposition is powerful and smart.

2. Our recent survey for AMA showed that many people look to government *more* than to organized medicine for future leadership in advancing the nation's health. They feel government will be more likely to reflect the best interests of *all* the people.

3. The general public also showed that rather poor communications and financial relations exist now between the doctor group and the people. This remains an unresolved

source of trouble, but you can do something about *that.*

4. The cost of a full-scale communications effort in dollars would drive medical society membership fees *many times higher* than at present. It would require a major commitment from all physicians. Can we face up to that?

5. Physicians will find no way to delegate *all* of this monumental task to society officers or staff. Each man's life will change as he accepts this commitment to his future and to his country. "Business as usual," whether professional or commercial, is not sufficient to the day if it means ignoring this attack on the very fundamentals of your profession and of American life.

You will really have to *want to win,* enough to change your practice to meet this challenge—to devote time each week to the argument and to the cause.

In summary, in my opinion, your great profession *really* merits *full* public confidence but does not now have that insulation. This is an unfortunate fact. Adverse legislation is thus possible, perhaps probable. To give you hope, however, let me cite the public utilities who, since 1948, waged a large-scale war of ideas to slow the federalization of electric power. They have done rather well, in my opinion, in carrying their sound viewpoint into public awareness and acceptance throughout most of the nation. There is much less criticism today of the industry and less legislative attack.

On the other hand, the commodity markets of the Chicago Board of Trade and the New York Cotton Exchange are almost completely shut down by the federalization of agriculture. They went down almost silently. Agriculture itself is giving up its independence too. For example, recently 1,000 New Jersey egg farmers voted to ask Jimmy Hoffa to organize them into a pressure group. Their markets are evaporating and they want a way to force people to buy their products.

Medicine, however, has been vocal and active although largely on the defensive; perhaps now the medical profession might feel ready to take the offensive on a large scale.

There are many good leaders among you. Elevate them.

You have a powerful, well-regarded Association, the AMA; give it more support and more of your time and guidance.

You have great resources and ideas. Use them.

Our research shows the American people are receptive to your message. *Give it to them* with honesty, fairness and courtesy, being sure that it is repeated often enough for *everyone* to understand your story. Paste this in your hat. Americans, our research proves, always give a fair-minded decision when they understand the issue.

I hope I have made it clear that it will take a *tremendous* continuing effort to establish in the minds and hearts of your fellow Americans the *insulation* from attack your profession deserves.

In this modern world that task will never end, but it can be controlled to operate at a successful level. After all, the public needs to have physicians who are successful, respected and able to provide the best of medical care.

For my own part, I would remind you that an important factor in taking away the honest rewards of medical practice in England, was the large number of doctors who *wanted* socialization. To a degree, the same condition is among you in this hall and in every hall of medicine in the land.

It is my fervent hope that after consulting your consciences and your knowledge of the ways of men, you will undertake with renewed vigor the task of medicine—to provide good health to all Americans—and that you will add to that the task of remaking society to allow voluntary solutions, to make individual responsibility practical, to encourage solvent, limited government, and to obtain the maximum freedom for the human spirit.

Factors Relating To Physician Distribution in Oklahoma 1950-1959

Part V (Conclusion)

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IN THE first four parts of the present series,** data was presented to show that in the 1950 to 1959 interval the loss of practicing physicians from small communities in Oklahoma has continued. Only those communities of 20,000 population (1950) and over have, as a class, shown an increase. When population trends were taken into consideration, the losses of M.D.s per 100,000 population were of similar degree in the Rural-II counties and in the Metropolitan counties (14.2 and 14.9% respectively). Only in the case of osteopathic physicians in the Metropolitan counties did the increase in number exceed the rate of population increase. The over-all results for the state reflected a loss of 4.5% of M.D.s and an increase of 15.1% in D.O.s.

These changes in the M.D. population were shown to be associated with a fairly general increase in the proportion of physicians under 60 years of age. However, only in the Metropolitan and larger urban communities did this result primarily from net gains in the number of physicians under 60. Elsewhere the increased proportion under 60 resulted primarily from the loss of older physicians.

The influence of hospitals in small communities on these trends appeared to be somewhat equivocal. The larger the community the more physicians were retained and the fewer new ones came in. However, a greater proportion remained and new ones came in in the larger communities with hospitals than in those without.

The role of group practice, as a form of concentration and organization of physicians for making medical care available, was shown to be quantitatively small. Unpublished studies of this form of practice revealed that in the Great Plains states, with 54% of their land area making up the semi-arid Plains, there were 216 groups in 1959. One hundred and seven of these were in the Plains area of these states. Excluding groups (37) in the metropolitan areas outside of the Plains area, the 109 Plains groups represented 60% of the urban and small community groups. They included over 47% of M.D.s in group practice in those states. The remaining 53% were to be found in the 72 urban and small community groups outside of the Plains area. Trends of the rural population of these ten states has been downward in eight, and in six of these it had decreased below the 1920 level by 1950. The estimated Plains area density of population in these states varied in 1950 from 2.0 per square mile to 21.6 (Oklahoma) with an average of 13.0. For each state as a whole the population density ranged from 3.0 to 32.4 (Oklahoma) with an average of 15.6.[11]

Our studies of group practice in Oklahoma indicated there was a tendency for groups

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to be associated with a higher replacement rate, which helped to some extent to offset losses from individual practice. This might be expected because it substitutes active and knowledgeable search in place of the passive role played without adequate basis for judgment by most communities in need of physicians.

In the last article of this series we will look at the distribution of physicians as one of several primary and corollary components of the existing pattern of medical care in Oklahoma. In order to assure understanding, it will be necessary to clarify four points, viz (1) the concept of a pattern of medical care to be used as a frame of reference, (2) the definition of primary and corollary components, (3) the structural relationship of these components to the pattern of medical care, and (4) the juxtapositional relationship of the functional aspects of the components in and to the evaluation of the pattern of medical care.

Proceeding from general experience and recent studies, three concepts of the pattern of medical care can be recognized. It should be clear that in reality they are all complementary aspects of one total pattern. Each of the three concepts may be identified by the source of the description, i.e. (1) that from the patient- or potential-patient public, (2) that from the health professions and allied groups and (3) that from a theoretically objective source—an impartial observer. Each of the concepts may be couched in quantitative terms without judgment as to adequacy, and in both quantitative terms *and* qualitative terms with an evaluation of adequacy.

The primary components, as compared to the corollary components, are those without which the pattern of medical care, as described from any of the three sources, could not exist. This also defines the structural relationship of the primary components to the respective pattern concepts. In other words, the concept of the pattern of medical care which emerges will be closely dependent on the source of the description. However, on the basis of experience and of general knowledge a high degree of concensus can be expected from all three sources on certain primary components.

At the point of relating structure to function and of describing the pattern in both quantitative and qualitative terms, one begins to think in terms of "adequacy" of medical care, which requires the preselection of objective criteria against which or by which to evaluate it.

In the ensuing discussion and handling of the material to be presented, we have elected to attempt to place ourselves in the position of the third source, that of being impartial observers. We cannot claim to have been wholly successful, but the differing experience backgrounds of the authors has unexpectedly facilitated their joint efforts in this direction. In fact, this circumstance forced the recognition of the necessity to clarify the meaning of "the pattern of medical care," and thereby the importance of the sources of the partial concepts.

It is our belief that the pattern of medical care is a functional system; that the components of this system and their dynamic interrelationships may be considered to operate as an integrated homeostatic mechanism, no less so for their voluntary nature, resulting in the pattern to be observed and studied. Among the primary components, we would place (1) physicians and physician-services rendered, (2) hospital facilities and their services, (3) educational resources of personnel, (4) public utilization of these, and (5) the availability of economic support to maintain them at the level of their utilization. Each of these can be subdivided into corollary components conceived of as being the relevant qualifying characteristics, inherent or related to the situation in which the primary component is operative, i.e. community organization level, patient care, education, ways, means and level of economic support, etc.

We also believe that in order to comprehend, maintain and retain the system and its *voluntary independent-interdependent* characteristics, and to keep it developing in relation to the changing needs of society, it becomes increasingly important to have a satisfactory method for depicting and evaluating its operation in its separate parts and as a whole. The availability of such information, to be transmitted back to the par-

ticipants, would enable them to evaluate its accomplishments and to make more realistic judgments on modifications to be considered necessary for it to better serve the public. Likewise, the effects of changes would more quickly become evident and measurable.

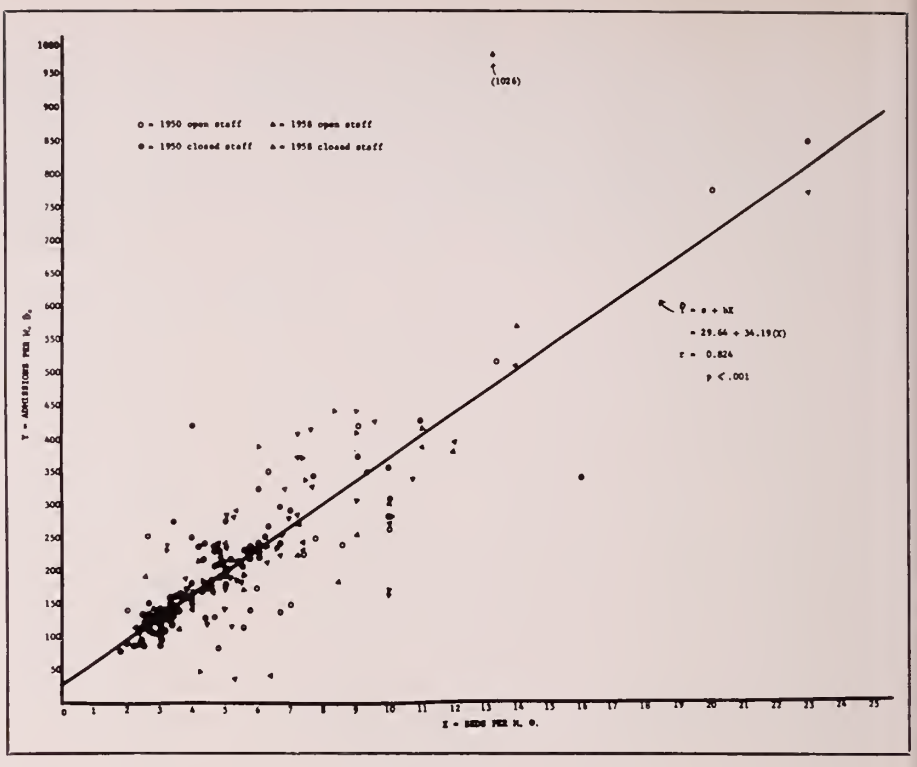


FIGURE I

The main objective of this paper is to present a preliminary exploration, for purposes of illustration, of a method which appears to have the potential for further development into such an instrument. Certain criteria, readily available in published form[5,6,7,8], will be used to represent some of the primary components and the populations which support them. It should also be noted that the ways in which these data are considered also serve as additional means of interpreting the relationships of these factors to physician distribution already dealt with in part in the previous articles of this series. It should be emphasized that this is the quantitative phase of a structural description with no attempt at or implication of qualitative evaluation. Methods for the later still need to be developed to fit this approach.

Preliminary to the main correlations, but contributory to the same, data are presented in Figure I and Table IX on the relation of physicians to hospital operation and construction. Figure I presents a scatter diagram which illustrates a heretofore little considered concept of the relationship of physicians to hospital utilization and operation. The points in the diagram can be fitted by the straight line $Y = 29.64 + 34.19X$. This illustrates that as the number of beds available per physician increases there is a consistent increase in the number of hospital admissions per physician per year. This significant relationship holds regardless of hospital size and type (open or closed staff)* and appears to be one of the most independent we have dealt with to date.** An associated finding, and apparent paradox, is the fact that more than 40% of hospital days remained unused in hospitals of less than 50 beds in 1959. Over 75% of the hospitals in Oklahoma were in that size category in 1959.

As the ratio of hospital beds to physicians increases (due either to the addition of beds or to a decrease of physicians) the larger number of admissions per physician per year very likely reflects the physician's concomitant use of hospitalization as a means of deriving the most effective use of his naturally limited physician-time.*** Logically one can expect a point beyond which there would be no further associated increase in admissions but rather a leveling off. Our data, however, does not appear to extend through this point.

Similar studies were made separately of the relationship of the number of hospital

*For the purposes of this initial analysis, "open" or "closed" staff designations are defined from the viewpoint of a physician considering a new location and his interest in the availability of hospital beds on a basis similar to that for the physicians with such access already practicing in the community.

**Unpublished data indicates a relatively close direct relationship between average daily hospital census and the number of physicians in the community, but no significant relationship between the number of physicians and the hospital occupancy expressed in percent.

***The concept of "physician-time" is an important unit of measure, relevant to the diverse demands on his time, and thereby of his patient-care and earning power. (See Roger I. Lee, M.D.—Fundamentals of Good Medical Care—1933).

TABLE IX

Changes in the Distribution of Practicing M.D.s in Relation to Changes (or lack of Changes) in Status of Hospitals (1950 to 1959)

Community Group Kind of Hospital Change	Number of Towns	Number of Hospitals Types of Staff 1950	1959	Number of beds 1950	1959	Percent of remaining	M.D.s New	Percent Total Change to 1959	Percent Replacement	Percent Less than 60 1950	1959	Percent Total Change to 1960
I Only Hospital Discontinued	8	c-8	None	104	None	25.0	50.0	—56.2	29.0	56.0	71.4	—62.5
II Gained New Hosp.	11	None	c-6	0	56	43.0	65.4	+24.0	142	43.0	77.0	+9.5
			o-5	0	102							
III Closed Staff to Open Staff	10	c-10	c-2	160	25	48.4	51.7	—3.2	97.0	50.0	75.0	—8.1
			o-10		320							
IV No Change	33	c-24	c-24	596	637	56.9	32.4	—16.0	63.0	71.0	76.1	—16.0
		o-9	o-9	239	246							

c = "closed" staff
o = "open" staff

admissions per physician to (1) the population per physician and (2) the population per hospital bed. The results did not show as obviously clear or strong a relationship in either instance as do those in Figure I.

Table IX presents data on 62 communities, of somewhat similar population range (500-6000-1950), sorted into four groups according to changes in their acute general hospital facilities and beds between 1950 and 1959. Accompanying these data are the figures on physician distribution and changes for each community group. As can be seen in Group I the loss of the only hospital (all "closed" staff) appears to be correlated with a strikingly adverse change in the physician population. This follows on excessive losses of physicians and limited replacement of such losses. Community Group II, having had no hospital previously and gaining one in this interval, shows the reverse phenomena from those in Group I. Fewer physicians left and this was accompanied by a replacement percentage 40% greater than the losses, resulting in a net increase of 24% by 1959.

Community Group III had "closed" staff hospitals which were either replaced by, or remained along with, the addition of an "open" staff hospital. In the process the number of beds doubled. This change was accompanied by little change in the physician population except in the proportion of the younger age group. (Compare with Tables VI and VII, Parts III and IV in this series.)

Community Group IV in which no significant change of the hospitals took place shows practically the same physician population picture as illustrated for such size communities, without group practice, in Table VI. In contrast to the first three community Groups in Table IX, there was no evidence of continued physician loss through 1959 to 1960. This fact, along with the high proportion of physicians below sixty years of age in both 1950 and in 1959 suggests something more stable about Group IV communities. What this might be we do not know.

Keeping in mind these types of studies and those of previous articles, we can now turn to a more general approach discussed earlier in this paper. Tables X, XI, XII, and XIII illustrate the highly significant relationship existing between four different

TABLE X

Urbanized counties—Coefficient of Concordance (W)

Data and Rankings on Factors Used

Rank Result	County	B.P.I. Index	B.P.I. Rank	M.D.s No.	M.D.s Rank	Hospital Beds No.	Hospital Beds Rank	Hospital Days Used No.	Hospital Days Used Rank	Sum of Ranks
1	A	.0133	4	11	1	62	1	17520	3	9
2.5	B	.0137	5	15	2.5	76	3	14600	1	11.5
2.5	C*	.0126	3	15	2.5	88	4	17155	2	11.5
4	D*	.0101	2	20	5	120	7	25185	4	18
5	E*	.0099	1	17	4	135	9	31025	10	24
6	F	.0186	9	21	6.5	105	5	27010	6	26.5
7	G	.0168	8	21	6.5	111	6	28105	8.5	29
8.5	H	.0127	12.5	31	12	72	2	25915	5	31.5
8.5	I	.0155	7	23	8	125	8	28105	8.5	31.5
10	J*	.0198	10	28	10	136	10	27375	7	37
11	K*	.0139	6	30	11	147	12	31775	11	40
12	L	.0202	11	26	9	158	13	39420	13	46
13	M*	.0217	12.5	32	13	146	11	35770	11	48.5
14	N*	.0245	14	39	14	193	15	40150	14	57
15	O*	.0266	15	44	16	164	14	46720	15	60
16.5	P*	.0391	18	40	15	207	17	61320	17	67
16.5	Q*	.0281	17	65	18	198	16	54385	16	67
18	R*	.0272	16	51	17	297	18	88330	18	69
Mean Values		.0191		29		141		36103		

W = .737
p = .001

*Largest Community designated regional hospital center in state hospital construction program.

TABLE XI

Rural-I Counties—Coefficient of Concordance (W)

Data and Rankings for Factors Used

Rank Result	County	B.P.I. Index	B.P.I. Rank	M.D.s No.	M.D.s Rank	Hospital Beds No.	Hospital Beds Rank	Hospital Days Used No.	Hospital Days Used Rank	Sum of Ranks
1	A	.0082	1	9	1	25	1	6935	1	4
2	B	.0101	3	14	3	59	4	11680	4	14
3	C	.0119	5	17	5.5	46	2	10585	2	14.5
4	D	.0085	2	11	2	68	7	14600	8	18
5	E	.0116	4	15	4	63	5	15330	8	21
6	F	.0139	7	17	5.5	67	6	17235	6	24.5
7	G	.0146	9	20	7	50	3	13140	5	24
8	H	.0140	8	22	8	75	8	11502	3	27
9	I*	.0131	6	23	9	153	9	42705	9	33
Mean Values		.0118		16		67		15968		

W = .606
p = <.02

*Largest Community designated a regional hospital center in the state hospital construction program.

criteria representing factors involved in the pattern of medical care system in Oklahoma in 1959. These consist of (1) the three factors of population, cash income and buying habits (retail sales) combined into a weighted index (B.P.I.),[9] (2) the number of M.D.s, (3) the number of hospital beds and (4) the number of hospital days used.

Using the statistic, Kendall's coefficient of concordance (W)*,[10] to evaluate these factors it is possible (1) to specify the degree of interrelatedness among all of them, (2) to rank the counties within the various organization levels** according to the sum of the ranked roles played by these factors in determining the relative relationship of each county to other counties in the group, and (3) to depict the contribution of each factor to the total rank level of each county.

Without reading into the data any judgment regarding "adequacy," it is possible to demonstrate from Tables X and XI how this information on the Urbanized and Rural-I levels may be used. Note that in those counties marked with an asterisk (the major community of each having been considered as a regional hospital center) the B.P.I. ranks for counties D, E, K, R (Table X) and I (Table XI) are low in comparison with the rankings for the number of M.D.s, hospital beds and hospital days used. This suggests that the major communities of these five counties are in fact functioning as medical care centers. The medical care facilities and services in these communities are being used and supported at a level above that to be expected from the local population and income alone. Additional information will be needed to describe the "regional area," population, etc. which these centers are serving, along with their functional relationships to other facilities (hospitals, nursing homes, etc.), the types of care available, and the impact of financing (insurance, Blue Cross, Blue Shield, and medical indigency). Likewise, it should be possible to learn why other major communities, presumably similarly situated, do not appear to be functioning up to their apparent potential.

The Rural-II counties have been separated into two groups, i.e. those in the western

*The value of W may vary from 0 to 1.0, the higher the value the stronger the indicated relationships.

**See Part II, March 1960 for definition of "organization levels."

TABLE XII

Rural-II (Great Plains Area) Counties
Coefficient of Concordance (W)
Data and Rankings for Factors Used

Rank Result	County	B.P.I. Index	B.P.I. Rank	M.D.s No.	M.D.s Rank	Hospital Beds No.	Hospital Beds Rank	Hospital Days Used No.	Hospital Days Used Rank	Sum of Ranks
1	A	.0027	3	1	2	0	2.5	0	2.5	10
2	B	.0023	1	1	2	14	5.5	1825	5	13.5
3	C	.0037	10	1	2	0	2.5	0	2.5	17
4	D	.0036	8	2	5	0	2.5	0	2.5	18
5	E	.0029	4	2	5	14	5.5	3650	6	21.5
6	F	.0024	2	2	5	25	8.5	4380	7.5	24
7	G	.0043	13	3	7	0	2.5	0	2.5	25
8	H	.0034	5.5	4	8	21	7	4380	7.5	38
9	I	.0034	5.5	5	9	25	8.5	5475	10	34
10	J	.0039	8	6	11	32	11	4745	9	39
11	K	.0036	8	6	11	32	11	7665	14	44
12	L	.0041	11	6	11	34	13	5840	11	46
13	M	.0062	16	7	14	45	16	6570	12	58
14	N	.0042	12	7	14	50	17	10950	18	61.0
15	O	.0072	19	9	17	32	11	9490	15.5	62.5
16	P	.0067	17	10	18	39	14	6935	13	62
17	Q	.0051	14	12	19.5	42	15	9490	15.5	64
18	R	.0056	15	8	16	54	18.0	17520	19	67
19	S	.0073	20	7	14	64	19	10220	17	70
20	T	.0070	18	12	19.5	77	20	18615	20	77.5
Mean Values		.0045		6		30		6382		

W = .856
p = <.001

TABLE XIII

Rural-II Eastern Counties Coefficient of Concordance (W)

Data and Rankings for Factor Used

Rank Result	County	B.P.I. Index	B.P.I. Rank	M.D.s No.	M.D.s Rank	Hospital Beds No.	Hospital Beds Rank	Hospital Days Used No.	Hospital Days Used Rank	Sum of Ranks
1	A	.0033	5	1	1.5	0	4.5	0	4.5	15.5
2	B	.0025	3	4	7.5	0	4.5	0	4.5	19.5
3	C	.0042	9.5	1	1.5	0	4.5	0	4.5	20
3	D	.0040	8	2	3	0	4.5	0	4.5	20
5	E	.0021	1.5	5	10.5	0	4.5	0	4.5	21
6	F	.0021	1.5	3	5	15	10	2555	10	26.5
7	G	.0032	4	3	5	11	9	2190	9	27
8	H	.0048	13	4	7.5	0	4.5	0	4.5	29.5
9	I	.0038	7	6	14.5	0	4.5	0	4.5	30.5
10	J	.0036	6	3	5	18	11	6205	15	37
11	K	.0059	20	5	10.5	0	4.5	0	4.5	39.5
12	L	.0068	23	5	10.5	19	12	4015	11	56.5
13	M	.0045	12	6	14.5	28	17	6570	17	60.5
14	N	.0049	14	6	14.5	36	20	5840	13	61.5
15	O	.0054	17	5	10.5	27	16	7300	19	62.5
16	P	.0056	18	7	18	25	14	5840	13	63.0
17	Q	.0050	15	8	20.5	26	15	5840	13	63.5
18	R	.0042	9.5	7	18	36	20	6570	17	64.5
19	S	.0061	24.0	6	14.5	20	13	6570	17	65.5
20	T	.0044	11	8	20.5	45	23	8030	20.5	75
21	U	.0081	24	9	23.5	30	18	8030	20.5	86
22	V	.0052	16	7	18	50	27	15330	26.5	87.5
23	W	.0057	19	11	26.5	36	20	10950	24.5	90.0
24	X	.0066	22	9	23.5	48	26	9490	23	94.5
25	Y	.0088	27	11	26.5	42	22	9125	22	97.5
25	Z	.0085	25	9	23.5	46	24.5	10950	24.5	97.5
27	AA	.0086	26	9	23.5	46	24.5	16095	28	102.0
28	BB	.0100	28	15	28	77	28	15330	26.5	110.5
Mean Values		.0053		6		24		5115		

W = .001

p = <.001

(Great Plains) section of the state (Table XII) and those in the eastern section (Table XIII). In addition to geographic and population density differences, (8.9/sq.m-W and 18.2/sq.m.-E), this division was based on findings, for the year 1959, that hospital occupancy and bed use (admissions per bed per year) were lower and local hospital admissions per 1000 population were higher (116.8) in the western Rural-II counties than in the eastern group (89.2). The average hospital admissions for the state was 117/1000 population and for the United States 119/1000. (Exclusive of osteopathic hospitals).

The data in Tables XII and XIII illustrate again the high degree of concordance among the variables studied, even in the face of the markedly different characteristics of the western rural areas and the eastern rural areas.

An extension of the general approach presented here, incorporating more sophisticated statistical techniques of data collection and analysis (such as multivariate analysis and multiple regression methods) should permit the testing and weighting of constants for these and other significant components. By such means, it should be possible to provide an appropriate index for estimating the adequacy of medical care in a given community.

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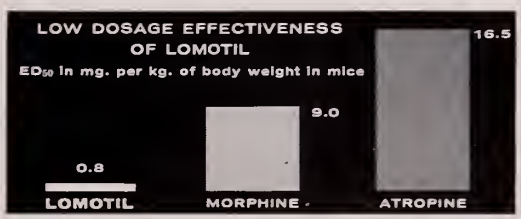
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PRESIDENT'S LETTER



The medical profession continues to be a favorite whipping boy for popular writers. The current Harper's magazine (Harper's magazine, October, 1960) contains an article by Edward T. Chase entitled "The Politics of Medicine." According to Mr. Chase, the American Medical Association is an ogre, preventing the logical development of medical care into pre-payment plans and group practice to administer these plans. Mr. Chase takes the position of so many others that I feel is ridiculous; that is that one plan can be set up in New York or Seattle or Miami, Florida that will ideally suit the needs of the entire population of the United States. I say again, as I said in my President's Page message of June in this *Journal*, after returning from a meeting in Chicago which devoted two days to presentation of all aspects of prepaid medical care, that different systems will have to be instituted to blend with the type of practice in different areas of this country. This is true within our own State, where several counties have service plans under Blue Shield but where most of our 77 counties want no part of such a plan. The situation is fluid. It will change back and forth I am sure. But we must be sensitive to these trends and study the plans critically for their good and bad aspects. Let's not be guilty of looking only at one side of the problem as Mr. Chase has done. You might read his article, that is if one of your patients hasn't already thrust it into your hands.

It has become necessary to call a meeting of the Council for November 13, to be followed that same Sunday afternoon by a meeting of the House of Delegates. There are matters for consideration by both groups that must be decided. It is my belief, however, that even though no particular problems are current that we should have regular meetings of the Council and House of Delegates twice a year. The advantage of this schedule is that we will thus have a meeting of our own State governing bodies before each meeting of the AMA. The winter meeting of the AMA this year is in Washington, D.C., November 28, 29, 30 and December 1. It is imperative that we formally present any resolutions from our Association as far in advance of the AMA meeting as possible and it is also mandatory that we instruct our delegates regarding any specific course

of action which we would like for them to follow. An instructed delegate from a State Association to the American Medical Association bears the same responsibility that you bear as a delegate from your County Society to the Oklahoma State Medical Association. Let's be thinking seriously of what we may want them to present or what we want explained or explored.

I often look with admiration at the writings of the other regular contributor in this *Journal,* my printer's ink neighbor, Doctor Mark Everett. He has a professional flair for writing, and probably he should, inasmuch as he writes this page of his month-in and month-out, year-in and year-out. I come along for one year and try to turn out something readable once a month that also expresses thought on the trends in our profession, but it is not as smooth as Doctor Everett's prose. I don't know how he makes copy seem current when I know that he has had to turn his own contribution in to the *Journal* a month before it actually appears in print in your office and mine. To me, this is an insurmountable barrier to fresh writing. I turn out something that seems to be of great interest to me on August 25, let me say, but when the printed word finally appears on my desk, September 22, it has a drab, worn look about it. But this is not true of the professor's effort. Turn to his page now and read a fluent, vigorous presentation of his subject for the month.



Walter E. Brown, M.D.
President

THE PRESIDENTIAL E

DEMOCRATIC PLATFORM

Health

Illness is expensive. Many Americans have neither incomes nor insurance protection to enable them to pay for modern health care. The problem is particularly acute with our older citizens, among whom serious illness strikes most often.

We shall provide medical care benefits for the aged as part of the time-tested social security insurance system. We reject any proposal which would require such citizens to submit to the indignity of a means tset—a "pauper's oath."

For young and old alike, we need more medical schools, more hospitals, more research laboratories to speed the final conquest of major killers.

Medical Care for Older Persons

Sixty million Americans—more than one-third of our people—have no insurance protection against the high cost of illness. For the rest, private health insurance pays, on the average, only about one-third of the cost of medical care.

The problem is particularly acute among the 16 million Americans over 65 years old, disabled workers, widows and orphans.

Most of these have low incomes and the elderly among them suffer two to three times as much illness as the rest of the population.

The Republican administration refused to acknowledge any national responsibility for health care for elder citizens until forced to do so by an increasingly outraged demand. Then, their belated proposal was a cynical sham built around a degrading test based on means or income—a "pauper's oath."

The most practicable way to provide health protection for older people is to use the contributory machinery of the social security system for insurance covering hospital bills and other high cost medical services. For those relatively few of our older people who have never been eligible for social security coverage, we shall provide corresponding benefits by appropriations from the general revenue.

Research. We will step up medical research on the major killers and crippling diseases—cancer, heart disease, arthritis, mental illness. Expenditures for these purposes should be limited only by the availability of personnel and promising lines of research. Today such illness costs us $35 billion annually, much of which could be avoided. Federal appropriations for medical research are barely 1% of this amount.

(Continued on Page 712)



vember 8 Presidential Election and physicians, as good citizens, are interested in a total evaluation of the candidates. Since the health planks of both party platforms will play important roles, however, this reprint will assist the physician in examining a key issue of special significance.

ION: HEALTH ISSUES

REPUBLICAN PLATFORM

Human Needs

The ultimate objectives of our free society and of an ever growing economy is to enable the individual to pursue a life of dignity and to develop his own capacities to his maximum potential.

Government's primary role is to help provide the environment within which the individual can seek his own goals. In some areas this requires federal action to supplement individual, local and state initiative. The Republican Party has acted and will act decisively, compassionately, and with deep human understanding in approaching such problems as those of the aged, the infirm, the mentally ill, and the needy.

This is demonstrated by the significant increase in social security coverage and benefits as a result of recommendations made by the Eisenhower-Nixon Administration. As a result of these recommendations and normal growth, 14 million persons are receiving benefits today compared to five million in 1952, and benefit payments total $10.3 billion as compared to $2.5 billion in 1952. In addition there have been increases in payments to those on public assistance, both for their basic needs and for their health and medical care; and a broad expansion of our federal-state program for restoring disabled persons to useful lives — an expansion which has accomplished the rehabilitation of over half a million persons during this Administration.



New needs, however, are constantly arising in our highly complex, interdependent, and urbanized society.

To meet the needs of the aging, we pledge:

—Expansion of coverage, and liberalization of selected social security benefits on a basis which would maintain the fiscal integrity of the system.

—Support of federal-state grant programs to improve health, welfare and rehabilitation services for the handicapped older persons and to improve standards of nursing home care and care and treatment facilities for the chronically and mentally ill.

—Federal leadership to encourage policies that will make retirement at a fixed age voluntary and not compulsory.

—Support of programs that will persuade and encourage the nation to utilize fully the skills, wisdom and experience of older citizens.

(Continued on Page 712)

Democratic (continued)

Heart disease and cancer together account for two out of every three deaths in this country. The Democratic President will summon to a White House conference the nation's most distinguished scientists in these fields to map a coordinated long-run program for the prevention and control of these diseases.

We will also support a cooperative program with other nations on international health research.

Hospitals. We will expand and improve the Hill-Burton hospital construction program.

Health Manpower. To ease the growing shortage of doctors and other medical personnel we propose federal aid for constructing, expanding and modernizing schools of medicine, dentistry, nursing and public health.

We are deeply concerned that the high cost of medical education is putting this profession beyond the means of most American families. We will provide scholarships and other assistance to break through the financial barriers to medical education.

Mental Health. Mental patients fill more than half of the hospital beds in the country today. We will provide greatly increased federal support for psychiatric research and training and community mental health programs to help bring back thousands of our hospitalized mentally ill to full and useful lives in the community.

A Program for the Aging

The Democratic administration will end the neglect of our elder citizens. They deserve lives of usefulness, dignity, independence, and participation. We shall assure them not only health care but employment for those who want work, decent housing, and recreation.

Already 16 million Americans—about one in ten—are over 65, with the prospect of 26 million by 1980.

Health. As stated, we will provide an effective system for paid-up medical insurance upon retirement, financed during working years through the social security mechanism and available to all retired persons without a means test. This is first priority.

Republican (continued)

—Prompt consideration of recommendations by the White House Conference on Aging called by the President for January 1961.

Health Aid

Development of a health program that will provide the aged needing it, on a sound fiscal basis and through a contributory system, protection against burdensome costs of health care. Such a program should

—provide the beneficiaries with the option of purchasing private health insurance —a vital distinction between our approach and Democratic proposals in that it would encourage commercial carriers and voluntary insurance organizations to continue their efforts to develop sound coverage plans for the senior population;

—protect the personal relationship of patient and physician.

—include state participation.

For the needs which individuals of all age groups cannot meet by themselves, we propose:

—Removing the arbitrary 50-year age requirement under the disability insurance program while amending the law also to provide incentives for rehabilitated persons to return to useful work.

—A single, federal assistance grant to each state for aid to needy persons rather than dividing such grants into specific categories.

—A strengthened federal-state program to rehabilitate the estimated 200,000 persons who annually could become independent after proper medical services and occupational training.

—A new federal-state program, for handicapped persons completely dependent on others, to help them meet their needs for personal care.

Health

There has been a five-fold increase in government-assisted medical research during the last six years. We pledge:

—Continued federal support for a sound research program aimed at both the prevention and cure of diseases, and intensified efforts to secure prompt and effective appli-

Democratic (continued)

Income. Half of the people over 65 have incomes inadequate for basic nutrition, decent housing, minimum recreation and medical care. Older people who do not want to retire need employment opportunity and those of retirement age who no longer wish to or cannot work need better retirement benefits.

We pledge a campaign to eliminate discrimination in employment due to age. As a first step we will prohibit such discrimination by government contractors and subcontractors.

We will amend the Social Security Act to increase the retirement benefit for each additional year of work after 65, thus encouraging workers to continue on the job full time.

To encourage part-time work by others, we favor raising the $1200 a year ceiling on what a worker may earn while still drawing social security benefits.

Retirement benefits must be increased generally, and minimum benefits raised from $33 to $50 a month.

Housing. We shall provide decent and suitable housing which older persons can afford. Specifically we shall move ahead with the program of direct government loans for housing for older people initiated in the Housing Act of 1959, which the Republican administration has sought to kill.

Special Services. We shall take federal action in support of state efforts to bring standards of care in nursing homes and other institutions for the aged up to desirable minimums.

We shall support demonstration and training programs to translate proven research into action in such fields as health, nutritional guidance, home care, counseling, recreational activity.

Taken together, these measures will affirm a new charter of rights for the older citizens among us—the right to a life of usefulness, health, dignity, independence and participation.

Physically Handicapped. We pledge continued support of legislation for the rehabilitation of physically handicapped persons and improvement of employment opportunities for them.

Republican (continued)

cation of the results of research. This will include emphasis on mental illness.

—Support of international health research programs.

We face serious personnel shortages in the health and medical fields. We pledge:

—Federal help in new programs to build schools of medicine, dentistry, public health and nursing and to provide financial aid to students in those fields.

We are confronted with major problems in the field of environmental health. We pledge:

—Strengthened federal enforcement powers in combatting water pollution and additional resources for research and demonstration projects. Federal grants for the construction of waste disposal plants should be made only when they make an identifiable contribution to clearing up polluted streams.

—Federal authority to identify, after appropriate hearings, air pollution problems and to recommend proposed solutions.

—Additional resources for research and training in the field of radiological medicine.

Protection of Consumers

In safeguarding the health of the nation the Eisenhower-Nixon Administration's initiative has resulted in doubling the resources of the Food and Drug Administration and in giving it new legal weapons. More progress has been made during this period in protecting consumers against harmful food, drugs, and cosmetics than in any other time in our history. We will continue to give strong support to this consumer-protection program.

Veterans

We believe that military service in the defense of our Republic against aggressors who have sought to destroy the freedom and dignity of man imposes upon the nation a special responsibility to those who have served. To meet this responsibility, we pledge:

—Continuance of the Veterans Administration as an independent agency;

—Highest possible standard of medical care with increasing emphasis on rehabilitation to restore them to meaningful lives.

GOOD CITIZENSHIP CAMPAIGN

Physicians must be recognized as influential, responsible citizens if they are to keep pace in a fast-moving world of social and political change.

There are no better ways to achieve such recognition than by demonstrating a sincere interest in good government, and by exercising local leadership toward democratic representation at the polls. Specifically, each individual physician must be well-informed about candidates and issues, must attend precinct and ward meetings to assure the selection of qualified candidates, should contribute physically and financially to the candidate and party of his choice, and most importantly, he must vote and encourage others to discharge this basic responsibility of freedom.

On November 8, 1960, another milestone in the political course of our nation will be reached. Sadly, many Americans will arbitrarily cast their votes, while many others will commit an equal sin—fail to go to the polls!

What better opportunity for a Good Citizenship Campaign! It's simple—just employ the office display card on the opposite page, encourage others to close their offices for part of the election day, impress everyone you contact with the value of their vote!

COUNCIL ON PUBLIC POLICY

Pensioners and Near-Needy Get Expanded Medical Care Program

An expanded, $19 million a year medical care program for 89,000 recipients of old age assistance has been placed in operation by the Oklahoma State Department of Public Welfare. At the same time, plans are being formulated to help pay the costs of health care for approximately 15,000 persons over age 65 who do not qualify as pensioners, but who are unable to bear the cost of illness out of their own resources.

The financial plight of the Department of Public Welfare announced in last month's Journal has been relieved by the passage of H.R. 12580. Thus, the temporary 10% cut in payments to health care vendors has now been restored.

The expansion of the old age assistance program and the creation of the plan to help the *near-needy* were made possible by congressional approval of H.R. 12580 last August. An amendment to the Social Security Act, the new law provides for federal-state supported health programs as designed by the various state governments, for both categories of medically indigent. Although the legislative measure is incorporated into the O.A.S.I. law, it will be administered at the federal level by the Department of Health, Education and Welfare, and the federal funds will be taken from general revenue rather than through an increase in Social Security taxes.

Previously, Oklahoma was spending about $11 million of its sales tax revenue a year to provide certain health care services to old age assistance recipients. Now, the federal government will match state medical care funds in accordance with the equalization formula used to compute the federal share of old age assistance payments. Based on per capita income of the state, Oklahoma will get 68% of its money matched by Uncle Sam, bringing the medical pooled fund for the state up to about $19 million annually.

Expanded benefits will result from the federal participation. Whereas only $12 per month was previously available to pay into the pooled fund for each individual pensioner, there will now be $18-$20 each.

Controversial Legislation

H.R. 12580, frequently referred to as the Kerr Bill (Senator Robert S.), represented compromise legislation which evolved from three years' congressional debate over providing health care for the ever-increasing segment of the nation's over-65 population. Rearing its ugly head throughout the long deliberation of the problem was the Forand Bill, which would place all Social Security recipients under a medical-coverage-umbrella of O.A.S.I., with increased payroll deductions necessary to finance the scheme. Since financial need was excluded from consideration under such "Mother Hubbard" legislation and since many needy persons would not qualify under the system, the measure was opposed by medical organizations and other groups interested in protecting individual rights from ill-conceived federal benevolence. On the other hand, the American Medical Association actively supported H.R. 12580, since it provided for local responsibility and control. Moreover, it provides for those who truly need help, rather than using a shotgun technique of financing. The "Kerr Bill" will cost the federal taxpayers an estimated $300 million per annum, versus over $1 billion annually for the Forand approach.

A last-ditch maneuver to amend H.R. 12580 on the Senate floor, and place the health program under the financial system of O.A.S.I., was successfully fought by Senator Kerr. The victory was close, however, with only 51 Senators out of 100 voting against the amendment.

Benefits Outlined

Immediately after the bill became law, the Oklahoma Public Welfare Commission and the state Department of Public Welfare, working with the Professional Advisory Committee, set to work drafting policies for the implementation of the program in Oklahoma. After a series of meetings and consultations with interested professional associations, the Commission stamped final approval on the proposed program at a special meeting held September 27, 1960. In highlighting the approved program, discussion may be grouped into four general areas: In-Patient Medical Care; Out-Patient Institutional Care; Out-Patient Non-Institutional Care; and, Miscellaneous Provisions.

(Continued on Page 718)



attains
sustains
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extra
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DEC

attains activity levels promptly

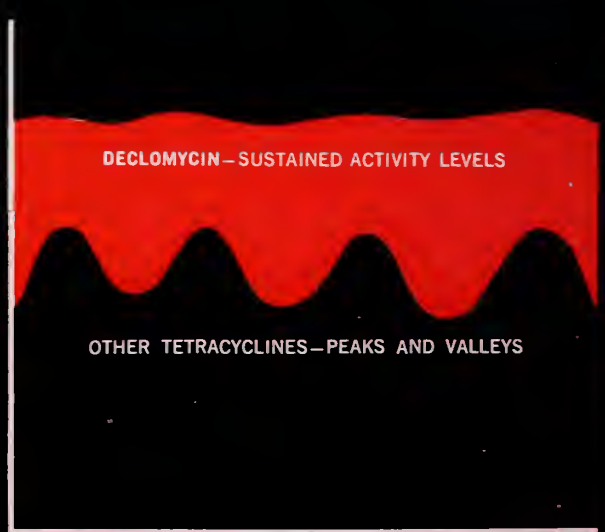
DECLOMYCIN Demethylchlortetracycline attains—usually within two hours—blood levels more than adequate to suppress susceptible pathogens—on daily dosages substantially lower than those required to elicit antibiotic activity of comparable intensity with other tetracyclines. The average, effective, adult daily dose of other tetracyclines is 1 Gm. With DECLOMYCIN, it is only 600 mg.

sustains activity levels evenly

DECLOMYCIN Demethylchlortetracycline sustains, through the entire therapeutic course, the high activity levels needed to control the primary infection and to check secondary infection at the original—or at another—site. This combined action is usually sustained without the pronounced hour-to-hour, dose-to-dose, peak-and-valley fluctuations which characterize other tetracyclines.



POSITIVE ANTIBACTERIAL ACTION



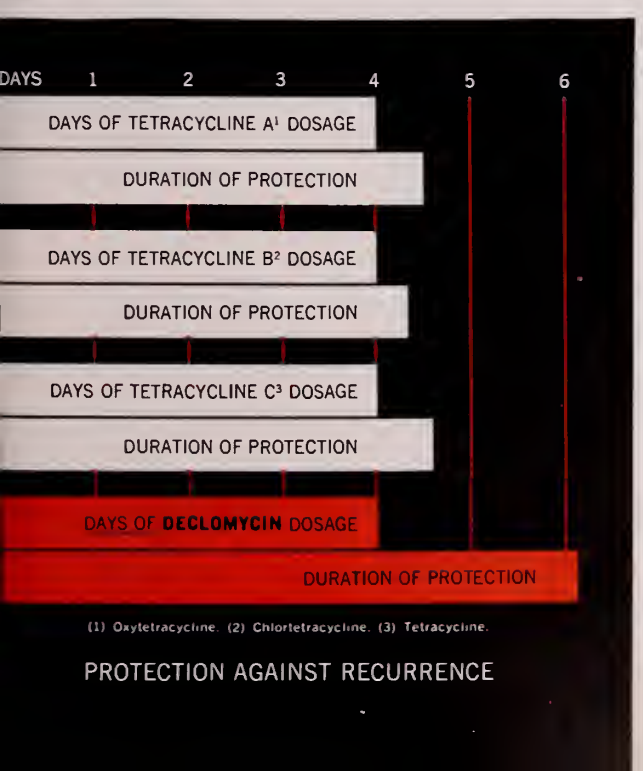
PROTECTION AGAINST PROBLEM PATHOGENS

LOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

retains activity levels 24-48 hrs.

DECLOMYCIN Demethylchlortetracycline retains activity levels up to 48 hours after the last dose is given. At least a full, extra day of positive action may thus be confidently expected. The average, daily adult dosage for the average infection—1 capsule q.i.d.—is the same as with other tetracyclines...but **total** dosage is lower and duration of action is longer.



CAPSULES, 150 mg., bottles of 16 and 100. **Dosage:** Average infections—1 capsule four times daily. Severe infections—Initial dose of 2 capsules, then 1 capsule every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. **Dosage:** 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into 4 doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored), bottles of 2 and 16 fl. oz. **Dosage:** 3 to 6 mg. per pound body weight per day—divided into 4 doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under constant observation.

Lederle

LEDERLE LABORATORIES
A Division of
AMERICAN CYANAMID COMPANY
Pearl River, New York

(Continued from Page 715)

In-Patient Medical Care

Doctors and Hospitals. Payment for general hospital care in licensed general hospitals is limited to a maximum of *twenty-one days for any one admission.* The rate of pay for the twenty-one days will be one hundred per cent of the hospital's per diem cost, with a recognized ceiling *($20.93),* or billed charges, whichever is less. Payment on behalf of recipients of old age assistance, aid to the blind, aid to dependent children's parents and aid to the disabled and non-assistance medically needy aged is limited to that hospital care required for life-endangering or sight-endangering illnesses.

Licensed medical and osteopathic physicians will be paid at the *rate of $5 per day for not more than fifteen days of any twenty-one day admission.* Payment for surgeons, anesthetists, pathologists and radiologists (for therapeutic radiology of malignant diseases) will be at *seventy-five per cent of the Commission's recognized rate,* as set forth in the Physician's Manual (The *current* Medicare fee schedule will be considered the recognized rate. Since some Medicare fees were adjusted upward in 1958, the new welfare fees will be somewhat more liberal). Assistant surgeons will be paid at the rate of *ten per cent* of the recognized surgical fee.

In collecting for both physician and general hospital services, private medical resources (such as insurance) of the patient should be applied toward the payment of billed charges. A bill may then be submitted to the welfare department for the difference between total billed charges and other resources, so long as that difference does not exceed the rate established by the Department of Public Welfare.

Nursing Homes. A major change in the program is found in the category of nursing home care. The Oklahoma Nursing Home Association has established a classification system (July, 1960, *Journal* of the OSMA) and the welfare department will honor this system by financially differentiating between the various classes and types of care.

Payment for nursing home services will be in the form of a vendor payment to the nursing home. An additional $46 per month is included in the recipient's money payment to be used for the items of food and shelter.

NURSING HOMES: METHOD OF PAYMENT

	Recognized Daily Rate	Welfare Daily Rate	Collectible From Other Resources*
Class A-1 Heavy	$5.10	$4.30	$.80
A-1 Light	3.60	3.05	.55
Class A-2 Heavy	4.90	4.15	.75
A-2 Light	3.40	2.90	.50
Class B-1 Heavy	4.70	4.00	.70
B-1 Light	3.20	2.70	.50
Class B-2 Heavy	4.50	3.80	.70
B-2 Light	3.10	2.60	.50
Class C-1 Heavy	2.75	2.55	.20
C-1 Light	2.50	2.40	.10
Class C-2 Heavy	2.65	2.50	.15
C-2 Light	2.40	2.40	.00

*May be collected from insurance, relatives, etc., but not from patient.

The rate for "light nursing care" will be paid until proof of the need for "heavy nursing care" is furnished to the welfare department. This proof must include a statement from the attending physician setting forth the type of nursing service needed.

Physicians will be paid for necessary visits to the nursing home at the rate of $5 per call per patient for a maximum of two calls per patient per calendar month. A $5 fee will also be paid for the initial examination to distinguish between light or heavy nursing care need.

Convalescent Hospitals. Also extended to include *convalescent care in a general hospital,* this new category of aid has been made possible by the federal legislation.

If application is made in behalf of the recipient for convalescent care, the reimbursable cost of the hospital facility will be paid up to *a maximum of $10.47 per day, not to exceed thirty-one days for one admission.* Thus, a general hospital, upon finding it necessary to retain a patient to the termination of the twenty-one day compensable period, may file application for an additional thirty-one days at one-half of the general hospital rate. However, no payment will be made for either nursing home or convalescent care without prior approval by the welfare department.

Physicians will be paid for care of convalescent patients at the rate of $5 per visit, for a maximum of ten visits per admission, with the maximum compensable rate being one visit per day.

Out-Patient Institutional Care

Payment will be made to licensed general hospitals in the form of an emergency room fee of $5.50, such payment being limited to acute injury cases only. When it is necessary that diagnostic x-ray studies be made on such cases, a maximum of $15 is authorized. When it is necessary that diagnostic laboratory procedures be performed, a maximum of $7.50 is allowed. None of the above fees will be paid if the patient is admitted to the hospital within twenty-four hours.

Physicians will be paid for such emergency room care at the rate of $5 per emergency room visit or at the rate of seventy-five per cent of the recognized surgical procedure schedule for surgery performed on acute injury cases. Admission to the hospital within twenty-four hours will void this provision.

Out-Patient Non-Institutional Care

Emergency Care. Except for the payment of an emergency room fee, the provisions for institutional out-patient care also apply to *emergency services performed in the physician's office.*

Home Visits. *Physicians will be paid for home visits to persons receiving authorized nursing care in the home at the rate of* $5 *per house call, with a maximum of two calls per month. Physicians may also be paid for making the initial examination to determine the need of nursing care in the home, at the rate of $5 per examination.*

Radiology. *Out-patient therapeutic radiology is authorized* for malignant diseases, *at 75% of the recognized schedule of allowances,* when such therapy has been prescribed while the patient is in the hospital.

Home Nursing Care. Payment will be made to persons rendering nursing care in the recipient's own home, when this person has been certified competent to render such care by the attending physician. Payment for such care will be at the rate of $2.00 per day, per patient, when such care has been approved by the welfare department's Medical Review Team, upon written recommendation of the attending physician, with an additional $1.00 per day, per each additional recipient, when there are other eligible persons in the household. Registered nurses and licensed practical nurses may bill the Department for nursing services rendered to no more than four persons daily. Non-licensed persons may bill for no more than two households and not to exceed four persons daily.

Miscellaneous Provisions

Provisions for ambulance service, blood banks and dental services remain unchanged from the previous program. Ambulance services will be paid at twenty-five cents per mile, blood banks at $15 per pint (if blood has not been replaced for the recipient within ninety days of administration), and dentists will be paid for care of life-endangered conditions involving fractures, infections or tumors of the mouth.

The Near-Needy Program

Non-public assistance cases will be cared for within the availability of funds. The Public Welfare Commission has agreed that the scope of the program and the quality of care will be the same for this category of medically indigent as for those on the public assistance rolls.

With the benefits the same, the problem is now one of determining the eligibility requirements for the "near-needy" group. It is anticipated that these requirements will be substantially the same as for those on public assistance rolls, primarily due to the limitation of present state funds to be used for federal matching purposes for the non-assistance group.

Extension of the program into this area will be accomplished to some degree, however, because federal matching funds in the old age assistance program have freed a portion of state funds which may now be used to care for the near-needy.

It is important to note that the near-needy medical program will be operated in such a manner as to provide help when other medical resources have been used. In other words, the patient will probably already be in the hospital before application is made for financial assistance. Unlike the old-age assistance program, the federal government will not assist the state in establishing a pooled fund, but, rather, will simply reimburse the welfare department for a portion of an expense already incurred and paid.

New Manual

A new Physician's Manual is now being prepared by the Oklahoma State Department of Public Welfare for distribution to each physician in the state.

Historic Washington Hosts AMA Clinical Meeting

Washington, D. C., site of the 1960 clinical meeting of the American Medical Association, is a city of imposing dignity with a rich historical tradition.

Its world famous landmarks, the Washington Monument, Lincoln Memorial, Capitol and White House, are the city's biggest attractions. But the symmetrically laid out streets of the nation's capital lead to many other points of interest.

In the vicinity of the White House, grouped around Lafayette Square, are Blair-Lee House, the president's guest house; Decatur House, one of the few remaining mansions that originally lined the square; the Truxtum-Decatur Naval Museum; the former home of Dolly Madison, and St. John's Church where 13 presidents have worshipped.

An estimated 51,000,000 historical items are jammed into the Smithsonian Institute, located on the Mall which lies between Capitol Hill and the Lincoln Memorial. The collection, including Charles A. Lindberg's plane, The Spirit of St. Louis, and stuffed game bagged by Theodore Roosevelt, has earned for the institution the nickname of "the nation's attic."

The real historical charm of Washington is found in Georgetown. Many houses reflect the feeling of the colonial era. However, there is only one authentically furnished Colonial house open to the public all year round—Dunbarton House, a brick mansion built around 1800. Another of Georgetown's famous houses is Evermay, built about 1792.

Two other famous homes near Washington are Robert E. Lee's restored mansion in Arlington, Virginia, and the white-columned Mount Vernon of George Washington.

There are many places associated with the first president within easy reach of the capital. In nearby Alexandria are Christ Church, where Washington was a vestryman, and Gadsby's Tavern, his headquarters as a colonel in the Virginia Militia.

Just 80 miles from Washington is Gettysburg, Pennsylvania, scene of the greatest battle of the Civil War. Cannon still stand in place, and the sequence of events can be reconstructed from markers and tablets.

Other historically interesting towns, slightly farther from Washington, are Fredericksburg, Williamsburg, Charlottesville and Richmond in Virginia, and Annapolis, Maryland.

In addition to historical sights, most visitors to Washington go to Arlington National Cemetery to view the tombs of the unknown soldiers of three wars and take tours of the Supreme Court, the FBI and the Bureau of Engraving and Printing.

Washington also takes pride in its cultural attainments. It has many fine art galleries, among them the National Gallery of Art, the Corcoran Gallery of Art, Freer Gallery of Art and Phillips Memorial Gallery. It also has innumerable theaters and offers concerts by the National Symphony Orchestra and the Army, Navy, Air Force and Marine bands.

Washington has excellent restaurants, many featuring seafood from Chesapeake Bay. There are also French, German, Italian and Oriental restaurants in the capital.

An attractive feature of shopping in Washington are the frequent noon-time fashion shows in leading department stores.

All in all, autumn in Washington can be a delightful season for the physician and his family attending the AMA's 14th clinical meeting, November 28-December 1.

Robert J. Huebner, M.D., Will Speak at Medical Center

Robert J. Huebner, M.D., chief, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, has accepted the invitation of the Oklahoma Tuberculosis Association to deliver the annual Carl Puckett Memorial Lecture at the University of Oklahoma Medical Center. The lecture will be at 4 p.m., Wednesday, January 18. Doctor Huebner also will participate in other conferences and seminars on January 17 and 18.

Medical Public Relations Discussed in Chicago

Public relations-minded physicians and medical society executives took a long look in the mirror of public opinion during the American Medical Association's 1960 Public Relations Institute, held in Chicago on September 1 and 2. OSMA President Walter E. Brown, M.D., and Associate Executive Secretary Don Blair represented the state organization at the meeting. From Oklahoma and Tulsa Counties, were Executive Secretaries Alma O'Donnell and Jack Spears.

Image of Medicine

The importance of facing up to the challenge of the public image versus reality and recognizing "the cracks in medicine's mirror" was the theme of Thursday's opening session. In the keynote address, Pierre Martineau, research director of the *Chicago Tribune,* declared that the public image of doctors and their organizations will play a key role in the future course of political and public behavior involving the profession.

Citing many examples of public reaction to certain products and brand names, Mr. Martineau made this point:

"Every brand name that is well known at all is defined in the public mind partly by what it is but also, very importantly, by sets of psychological associations which may or may not be true. These persist almost like a halo attached to the product. Both of these constitute a brand image . . . All of our stimuli from the outside are filtered through the images that we have of a particular situation."

He pointed out that images can be modified, but not simply by supplying facts and information. It is imperative, he continued, to come to grips with the problem of the doctor and the AMA as they really are and as they are seen by the public, politicians and intellectuals.

Another speaker, Gerald J. Skibbins of Opinion Research Corporation, Princeton, New Jersey, declared that all of our authorities and authority symbols are under a major challenge to prove that they are worthy of the respect and attention of the people. A good, strong organization image, he said, requires positive, constructive actions that are well interpreted.

As Media Sees It

Regarding the relationship between physicians and newsmen, George Brandenburg, midwest editor of *Editor and Publisher,* reported that conditions have never been better. The real progress, he said, can be credited to physicians "who have learned to be articulate and who have demonstrated that you don't have to be a quack to get into print." Mr. Brandenburg added, however, that all is not rosy. He said there are still too many local instances of professional jealousy, adherence to the "tradition of silence" and attitudes which create the image of a "secret society."

Mr. H. A. Carlborg, CBS program director, warmed up on the same subject as applied to television. He reported that television reflects a favorable image of medicine. CBS is concerned with presenting the symbol of the doctor in the best possible and most favorable light, he said, and no material is allowed to glorify negative elements. He suggested, however, that television may well consider doing some programs which would point up some of the controversy that may exist within the profession.

Why the Problem?

Members of a panel discussion concerned themselves with why people see doctors as they do.

Many reasons were brought out, but the one most frequently advanced was the problem of "remoteness" or lack of personal involvement between patient and doctor. Too many physicians have lost some of the art of medicine, medical administration consultant James E. Bryan said, and there is also "a profound conflict between the profession's social outlook and the popular ideologies of our day." Another speaker questioned the wisdom of branding opponents with the label of socialism. Instead of merely disliking social and economic changes, it is better to regulate the underlying causes of the changes.

Answers Sought

Before the meeting was over, the registrants had ample opportunity to evaluate their responsibilities, discuss specific cases and generally measure the effectiveness of their public relations programs. Of particular value to the participants, was the formal and informal exchange of local public relations ideas.

Execs Meet

Prior to the AMA meeting, the doctors' hired hands, members of the Medical Society Executives Association, held a one day meeting on medical society management.

Press relations, relations with allied professions, medical journal publication, conduct of annual meetings, legislative activities and medical innovations shared the attention of the registrants. During this meeting, a new RCA Victor-NBC project was announced. Beginning in January, 1961, physicians in many parts of the country will be able to subscribe to a music-postgraduate education service for their offices. Each day the subscriber will receive carefully selected music for his waiting room, plus a fifteen minute postgraduate presentation which will be re-broadcast four times a day. During the postgraduate program, only the physicians private office will pick up the signal. Eventually, the service will be provided on a nationwide basis.

State Heart Association Holds Scientific Session

Seventy-one Oklahoma state physicians registered at the Scientific Session of the Oklahoma State Heart Association held September 23, 1960. They were treated to an experiment in medical education in the field of cardiovascular diseases. Ten consecutive cases from various sized hospitals throughout the state were presented. The cases discussed were representative of the problems encountered in the areas of congenital heart disease, congestive heart failure from any cause, valvular disease, and of myocardial infarction. In addition, postmortem findings in a series of cases were presented.

The discussion was led by Doctor Hans H. Hecht, Professor of Medicine, University of Utah College of Medicine, Salt Lake City, and Doctor Richard V. Ebert, Professor of Medicine and Chairman of Department of Medicine, University of Arkansas Medical Center, Little Rock.

Nearly half of the physicians who attended participated in the discussion from the floor. A questionnaire prepared by the Planning Committee of the Professional Education Committee of the Oklahoma State Heart Association which was responsible for the program showed a near unanimity of opinion that next year's meeting should be of the same general type.

Pioneer Physicians Honored at Bartlesville

Two pioneer physicians, one posthumously, were honored by the Washington - Nowata County Medical Society and the Oklahoma State Medical Association at a banquet held September 14 at the Jane Phillips Episcopal Hospital, Bartlesville.

The two physicians, L. D. Hudson, M.D., Dewey, and Harley M. Prentiss, M.D., Nowata, together accounted for nearly a century of medical practice, with about three-fourths of this time in Nowata and Washington Counties.

On hand to present OSMA Honorary-Life Membership Certificates was Walter E. Brown, M.D., state medical association president from Tulsa.

Mrs. Flo B. Prentiss, widow of Doctor Prentiss, accepted the honor in behalf of her husband who passed away last December. Doctor Hudson was present to receive his certificate.

Both physicians were products of interesting backgrounds. Doctor Hudson, who graduated from highschool at the age of 14, received an M.A. from Vanderbilt in 1904, taught school for two years, then attended the University of Nashville for his medical degree. Among other honors, he has been governor of the Oklahoma-Texas district of Kiwanis.

Doctor Prentiss, a 1918 O.U. graduate, came to Oklahoma before statehood, living with his family near Fairfax, Indian Territory. In 1929, he established his practice in Nowata.



Planes of visiting F.P.A. members crowd air strip of Western Hills Lodge.

U. S. Flying Physicians Hold Annual Meeting Here

Over 600 physicians and their wives from all over the country, members of the Flying Physicians Association, registered for the organization's annual meeting at Western Hills Lodge in Oklahoma's Sequoyah State Park, September 7, 8 and 9.

Aviation refresher courses in navigation, survival, night flying, instruments, instruction for sea plane ratings and helicopter piloting were interspersed with a schedule of speeches, clinics, orientation films and lectures presented by a group of outstanding guest speakers.

More than 135 aircraft, mostly light planes, were flown in by visiting delegates.



The Western Hills air-strip, a 2,500 foot blacktop runway, was in heavy use during the meeting. The Federal Aviation Agency sent a special crew to man the temporary control tower.

Check rides in helicopters were an innovation at this year's meeting. Physicians wanting the "chopper" experience received fifteen minutes of instrument briefing followed by a thirty minute ride. During the air time, physicians were given an opportunity to fly as well as land the crafts.

One unusual feature which was added this year was "operation touch down" for members of the "Doc-Ettes," an auxiliary organization composed of the physicians' wives. The idea was proposed to teach the doctors' wives how to land their husbands planes in case of emergency.

Newly elected officers of the group are Frank H. Coble, M.D., Richmond, Indiana, president; Robert O. Brown, M.D., Atchinson, Kansas, president-elect; L. D. Beck, M.D., Phoenix, Arizona, secretary; and Carl H. Guild, M.D., Tulsa, treasurer.

C. M. Starr, M.D., North Hollywood, California, retiring president of the F.P.A. (left), Mark E. DeGroff, Tulsa, executive director (center), and Frank H. Coble, M.D., Richmond, Indiana (right), incoming president, are shown visiting during recess in meeting activities.



Lamont's thirteen room, air conditioned clinic is pictured above.

Lamont Needs A Doctor

Lamont, a northern Oklahoma community of 700, needs a physician.

Until recently, the townspeople were enjoying good medical care, but the accidental death of their physician's wife resulted in his relocation. Now, Lamont leaders are actively soliciting the services of another doctor of medicine to staff their $31,000 community-owned clinic.

The clinic, which was constructed with voluntary contributions in 1959, contains thirteen rooms, including a reception room and business office, two treatment rooms, x-ray and darkroom, laboratory, physical therapy, convalescent bed room, facilities for minor surgery, private office, and three rest rooms. Citizens built the modern structure with voluntary labor after raising $22,000 for the building itself and another $9,000 for furnishings. Individual gifts ranged from $5 to $500.

The Lamont Clinic Association, a nonprofit organization, has been established to manage the activity. Five of the directors live in Lamont and five reside in outlying areas. Rent on the building and furnishings has been set at $100 per month.

Boasting a trade territory population of 2000 persons, the prosperous community has already proven that it will enthusiastically support an active practitioner. In fact, the energetic accomplishment of the clinic construction also inspired other civic improvements, such as the paving of twenty-eight blocks of city streets and the renovation of several downtown store fronts.

Interested physicians are encouraged to contact Mr. Archel Muegge, Box 155, Lamont.

American Heart Association Will Meet in St. Louis

St. Louis will host the 33rd Annual Scientific Session of the American Heart Association to be held October 21-23, 1960 in the Kiel Auditorium.

Six clinical programs, which run concurrently with the investigative scientific programs, will stress the application of findings in cardiovascular research and will be proportioned among symposia, panels, lectures of general interest and submitted papers on recent results of research. These sessions have been approved by the American Academy of General Practice as acceptable for Category II credit.

An innovation in this year's program will be a session scheduled for dentists and nurses.

Registration and accommodation forms may be obtained from the American Heart Association, 44 East 23 Street, New York 10, New York.

OB-GYN Board Schedules Examinations

The next scheduled examination, Part 1, written, to be held by the American Board of Obstetrics and Gynecology will be in various cities of the United States, Canada and military centers outside the Continental United States on Friday, January 13, 1961.

Current bulletins may be obtained by writing to Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

Second Councilor District Holds Fall Meeting

Physicians and their wives from Kay, Noble, Osage, Payne and Pawnee counties, held their annual Fall Banquet at Stillwater's Elk's Club on September 22. More than sixty attended the social hour and dinner, traditionally conducted by Councilor District II in September as the kickoff meeting for organized medical activities in the area.

Special guests of the evening were: OSMA President Walter E. Brown, M.D., and Mrs. Brown; OSMA President-Elect Clint Gallaher, M.D., and Mrs. Gallaher; Mrs. Virgil Ray Forester, President of the Woman's Auxiliary to the OSMA, and Doctor Forester; and Don Blair, Associate Executive Secretary of the OSMA.

District II Councilors George B. Gathers, Jr., M.D., Stillwater, and A. M. Evans, M.D., Perry, were hosts for the event. Doctor Gathers welcomed the group and introduced the guests as well as the principal speaker, Doctor Brown.

Brown Speaks

Doctor Brown briefly described the operation of the central office of the Oklahoma State Medical Association, then presented a detailed history of events leading up to the recent enactment of health legislation for senior citizens. Beginning with the introduction of the controversial Forand Bill, he traced the activities of the officers and staff of both the state and national medical associations. He particularly emphasized the need which became apparent for organized medicine to support a positive alternative to the Forand Bill, and explained that H.R. 12580, the bill finally passed, represented an approach to the problem which *did* receive the endorsement of the American Medical Association (provisions of the bill are covered in the September issue of the *Journal* and elsewhere in this issue).

Lastly, Doctor Brown urged those present to have great respect for their voting rights. He reported that his recent experiences with national legislators revealed a continuing sensitivity to the political influence of the medical profession.

The next Fall Banquet of Councilor District II is set for September 12, 1961 in Cushing.



Two Tulsa Doctors Honored

Walter E. Brown, M.D., President of the Oklahoma State Medical Association (left), is seen as he presents gold 50-year pins to F. L. Underwood, M.D., and Walter S. Larrabee, M.D., both of Tulsa, in commemoration of the completion of fifty years in practice.

Also receiving a 50-year pin was D. L. Garrett, M.D., of Tulsa.

The presentations were made at the September 12th meeting of the Tulsa County Medical Society.

Doctor Larrabee was also awarded a plaque denoting Life Membership, to which he was elected at the May meeting of the House of Delegates.

Committee on Athletic Injuries Appointed

President Walter E. Brown recently announced that six physicians have been asked to serve on the Committee on Highschool Athletic Injuries, a sub-division under the direction of the Council on Public Health.

The physicians tagged for the assignment are: George B. Gathers, Jr., M.D., Stillwater (Chairman); C. W. Arrendell, M.D., Ponca City; Mark D. Holcomb, M.D., Enid; William G. Mays, M.D., Fairfax; R. G. Obermiller, M.D., Woodward; and Robert G. Perryman, M.D., Tulsa.

Last year, the group participated in the planning of a postgraduate course on athletic injuries and established liaison with the Oklahoma Coaches Association, the Association of School Administrators and the Oklahoma Chapter of the American College of Surgeons.



Admiring an album of "Employ the Handicapped" stamps are (l. to r.) Don Blair, Lt. Governor George Nigh, O.C. Postmaster Henry Friend, and O.C. Mayor James Norick.

Commemorative Stamp Dedicated to Handicapped

On August 28, the Postmaster General of the United States issued a commemorative four cent stamp embodying the theme, "Employ the Handicapped." To illustrate the theme, the stamp shows a man in a wheel chair operating a drill press. Over 100 million of the stamps were produced in the first issue.

Simultaneous presentation of the stamp was effected on Augut 28 in the capitol city of each state, as well as at special ceremonies in New York during the 8th International Society for Welfare of Cripples. The U.S. Postmaster appeared personally at the latter event, and presented albums of the stamp to representatives of sixty foreign countries.

In Oklahoma City, members of the "Employ the Handicapped" team, representing officials of business, civic and professional groups, gathered at the Goodwill Industries office for a presentation luncheon. Henry Friend, Oklahoma City Postmaster, presented an album to Lt. Governor George Nigh.

Mr. Don Blair, Associate Executive Secretary of the Oklahoma State Medical Association, attended the luncheon as an official representative of the physicians of Oklahoma. According to Mr. Blair, the stamp may be purchased at all post offices in Oklahoma. If out of stock at the local postoffice, the postmaster can order the stamp from the Oklahoma City post office.

Blue Shield Fees Undergo Study

A special committee has been appointed by Frank J. Nelson, M.D., Chairman of the Prepaid Medical Care Committee, to re-examine the complete Blue Shield schedule of allowances and make recommendations for equitable adjustments. The action followed a September 25th meeting of Doctor Nelson's committee, at which time it was brought to the attention of the group that the present Blue Shield schedule was basically unchanged since 1945.

Although a number of allowances have been adjusted since the original schedule was prepared, many physicians have indicated that the schedule as a whole is out of balance with current economic factors. The special committee will review the entire plan, using a system of relative values and perhaps employing other techniques to objectively modernize the schedule.

Serving on the special committee are: Robert B. Howard, M.D., Oklahoma City (Chairman); W. Carl Lindstrom, M.D., Tulsa; and Vernon M. Lockhard, M.D., Bartlesville.

In other actions, the Prepaid Medical Care Committee made recommendations regarding x-ray diagnosis for Extended Benefits, Retroactive Polio diagnosis, payment for Encephalitis cases, definition of authorized nervous and mental care, and coverage of alcoholism cases. A number of new medical and surgical procedures were also discussed, and recommendations made to Blue Shield as to including them in the schedule of allowances.

Rising utilization percentages continued to be of concern to committee members and Blue Cross-Blue Shield officials. Several suggestions were made to strengthen the financial stability of the plans.

The committee also endorsed the appearance of physicians as speakers for Blue Cross Member Council meetings over the state. It was explained that next year's programming would be designed to bring about a better understanding of the physician's role on the "health care team".



Transcript Press Now in New Home

The Transcript Press, printer of *The Journal,* has completed its move into a large, modern building at 222 E. Eufaula St., Norman, and has been in operation at the new quarters since August 25. All offices and mechanical departments of the Transcript Press, which has been operated as *The Norman Transcript's* commercial printing department, were moved from 111 S. Peters Ave., where they had been for 35 years.

"Henceforth, the Transcript Press and The Norman Transcript will be operated entirely separately," Harold Belknap, business manager of the company, announced.

Located on the southwest corner of Eufaula Street and Crawford Avenue, the new building, 75 by 140 feet, is completely air and light-conditioned. With all operations "channelized" on one floor, it has an additional 4,500 square feet of storage space in the basement. A 50-foot parking lot on the east will provide off-street parking for both customers and employees.

"The Transcript Press is now a complete plant with all of its typesetting, printing, binding and mailing facilities in one building," Belknap said. "Installation of several new pieces of equipment designed for speed, economy and quality makes it possible to furnish an improved and expanded printing service."

Albon W. Davis, A.I.A., Oklahoma City, was architect of the contemporary-style steel, brick and aluminum building.

Gene Nance is manager of the Transcript Press which has about 30 employees. Bob Buford is assistant manager; Glen McCaslin is production superintendent, and they are assisted in the office by Mrs. Bonita Busby and Mrs. Lorna Snyder.

The Press produces a wide variety of printed matter for businesses, industry and organizations, in addition to personal printing. It prints a number of state and regional magazines and journals.

Support Sought for County Road Bill

Senator Fred R. Harris, Lawton, has appealed to members of the Oklahoma State Medical Association to support the "Rural Road Improvement Act of 1961," which he will introduce in the next Legislature.

Termed the best solution yet to the problem of making sure the people get the most out of the $32 million the counties receive each year in road-user taxes, the proposal has already won the praise of the Oklahoma Public Expenditures Council and the Oklahoma Farm Bureau.

The Harris bill would leave control with the county commissioners, but makes sure they spend the money as honestly and efficiently as the people have a right to expect. Here are some of the main provisions of the Senator's measure:

1. Each board of county commissioners must post publicly a complete, specific road budget at the start of every fiscal year, and also a report at the end of the year showing how its money has been spent.

2. Open, competitive bidding is required on nearly all major items, but not on purchases up to $200. This keeps the commissioners from getting bogged down in red tape in minor buying, but forbids splitting purchases to cut them below $200. Such splitting would be a felony under the law.

3. All purchases of bridge and piling, culvert pipe, grader blades and tires, regardless of amount, must be made on the basis of exclusive six-month contracts awarded on competitive bids, thus allowing the counties the advantage of the best prices obtainable.

4. Purchase orders must be issued for all sales to the county, but provision is made for actual emergency purchases without delay.

5. The board must designate one or more employees, under bond, to receive and sign for shipments of everything bought by the county. This will guarantee the county gets what it buys. The commissioners may not receive or sign for shipments themselves.

6. No contract may be made with relatives of the commissioners.

7. Each board must file a report quarterly with the State Tax Commission certifying it is following this law. If it doesn't report or comply, the tax commission must withhold all the county's road funds.

8. Any act or combination of vendors to fix prices or violate this law would be a felony, and commissioners who violate any section are liable to stiff penalties and automatic loss of office.

"Most people are surprised when they are told this isn't already the law," Harris said, "but the truth is that there is hardly a single enforceable law governing this important $32 million a year program."

Harris pointed out that while this is a rural road bill, the city dwellers should not lose sight of the fact that they have a real stake in its outcome, because 36% of their gasoline tax is earmarked for these roads.

"I hope the Doctors will help me," Harris said, "and they can if each will spend a few minutes acquainting himself with the proposal, and then call or write his legislators urging their vote for it."

OU Alumni Plan 50th Anniversary Banquet

The Alumni Association of the School of Medicine of the University of Oklahoma has announced a Commemoration event on Sunday, October 23, 1960, in Oklahoma City, of special interest to approximately 1,200 OU doctor graduates practicing in Oklahoma and the 600 others practicing in the United States, and abroad. Hundreds of Alumni and their wives are expected to attend.

On that date, immediately preceding the 30th Annual Fall Conference of the Oklahoma City Clinical Society, the Alumni Association at a Banquet in the Persian Room of the Skirvin Tower Hotel will observe the Fiftieth Anniversary of the founding in 1910 of the four-year School of Medicine of OU.

Until 1910, only the first two years of the basic medical sciences were taught by the University of Oklahoma and medical students had to go elsewhere, almost entirely out of state, for their remaining two years of clinical instruction and their M.D. degrees.

In 1910, the four-year Epworth College of Medicine, which was launched in 1904 by Methodist Epworth University in Oklahoma City and which became a separate corporation in 1907, was merged with the two-year School of Medicine of the University of Oklahoma. The Epworth College of Medicine which taught clinical as well as pre-clinical medicine had been granting M.D. degrees since 1907, and none of its graduates had ever failed to pass the State Board examination.

The O. U. School of Medicine absorbed the entire faculty of the Epworth College of Medicine numbering 26 trained teachers of medicine, all of whom gave their services voluntarily, and all of whom were practicing M.D.s. Inherited also was a total student body of 47, consisting of six seniors, six juniors, 10 sophomores, and 25 freshmen. All tuition money went into equipment for pre-clinical laboratories.

Instruction in the basic medical sciences was discontinued at Oklahoma City and given only on the Norman campus. The junior and senior years of clinical instruction were conducted only in Oklahoma City at a home and hospital rented on Northeast 4th Street. In 1919, the University Hospital was constructed on Northeast 13th Street. In 1921, a Nurses Home was built adjacent thereto. The building of the present Medical School and the Oklahoma Hospital for Crippled Children in the same area followed in 1928. The Departments constituting the first two years were moved from Norman to Oklahoma City. The present OU Medical Center now located from 801 to 921 Northeast 13th Street subsequently developed.

Approximately 2,400 men and a few women have been graduated with M.D. degrees during this past half century by the School of Medicine of the University of Oklahoma, Dean Mark Everett estimated. To them, September 1910 is an historic occasion.

According to John R. Taylor, M.D., Kingfisher, President of the Alumni Association of OU's School of Medicine, the Golden Anniversary theme will be carried throughout the Annual Banquet on October 23rd, 1960, beginning with the Social Hour at 6:15 p.m., and continuing through the dinner, class reunions of 1910, 1915, 1920, 1925, 1930, 1935, 1940, 1945, 1950, and 1955, the general membership meeting, entertainment, and dancing, which follow. John H. Lamb, M.D., Oklahoma City, is General Chairman of the Class Reunions.

Officers and Trustees of the Alumni Association will be elected for the coming year during the Membership meeting. Officers, Trustees, and Past Presidents will transact their business following a luncheon at noon, according to Larry Rember, executive secretary, in preparation for the evening Membership meeting.

President Taylor urges all OU Medical School Alumni to attend this Golden Anniversary Banquet and Commemoration.

Carolyn Griffy Wins Lottinville Award



The Lottinville Award for Excellence in Nursing was presented to Carolyn Griffy, at graduation exercises of the University of Oklahoma School of Nursing, September 6. Elaine McMinn, left, educational consultant with the State Board of Nurse Registration, made the presentation. The award, established by Savoie Lottinville, director of the University of Oklahoma Press, is given annually to the outstanding OU nursing graduate selected by the Oklahoma State Medical Association, the University of Oklahoma School of Medicine and the nursing school. Miss Griffy is now a staff nurse at University Hospital.

Blue Cross Utilization Percentages*
Year, 1959 Compared to First Six Months, 1960

County	1959	1960	% Change
Adair	86.4%	152.9%	+66.5
Alfalfa	111.1	85.6	—25.5
Atoka	110.9	111.8	+.9
Beaver	84.7	86.1	+1.4
Beckham	95.8	94.6	—1.2
Blaine	114.6	147.7	+33.1
Bryan	84.4	110.5	+26.1
Caddo	93.3	82.8	—10.5
Canadian	90.6	79.5	—11.1
Carter	83.3	89.4	+6.1
Cherokee	92.5	103.4	+10.9
Choctaw	121.3	124.0	+2.7
Cimarron	153.3	120.2	—33.1
Cleveland	91.1	102.4	+11.3
Coal	106.1	123.8	+17.7
Comanche	94.5	105.5	+11.0
Cotton	90.5	76.0	—14.5
Craig	100.5	107.3	+6.8
Creek	136.3	128.9	—7.4
Custer	79.7	99.6	+19.9
Delaware	106.0	81.6	—24.4
Dewey	87.9	102.4	+14.5
Ellis	84.8	67.8	—17.0
Garfield	129.1	142.0	+12.9
Garvin	85.2	74.3	—10.9
Grady	72.4	81.6	+9.2
Grant	144.1	161.7	+17.6
Greer	72.3	91.1	+18.8
Harmon	90.2	122.1	+31.9
Harper	87.2	75.3	—11.9
Haskell	105.3	119.4	+14.1
Hughes	96.2	62.7	—33.5
Jackson	86.6	108.2	—21.6
Jefferson	151.6	127.6	—24.0
Johnston	72.3	46.6	—25.7
Kay	94.2	103.9	+9.7
Kingfisher	78.1	76.8	—1.3
Kiowa	89.2	73.5	—15.7
Latimer	103.3	105.4	+2.1
LeFlore	89.7	98.2	+8.5
Lincoln	117.9%	117.0%	—.9
Logan	64.3	64.0	—.3
Love	80.1	60.5	—19.6
McClain	97.6	66.6	—31.0
McCurtain	123.2	121.4	—1.8
McIntosh	92.3	172.3	+80.0
Major	101.4	116.2	+14.8
Marshall	81.3	84.9	+3.6
Mayes	85.4	78.1	—7.3
Murray	96.1	96.3	+.2
Muskogee	90.2	96.6	+6.4
Noble	109.3	113.8	+4.5
Nowata	124.3	104.3	—20.0
Okfuskee	86.2	129.2	+43.0
Oklahoma	80.9	83.2	+2.3
Okmulgee	125.0	95.9	—29.1
Osage	121.2	102.1	—19.1
Ottawa	96.3	92.1	—4.2
Pawnee	117.9	134.4	+16.5
Payne	92.0	88.4	—3.6
Pittsburg	102.7	105.9	+3.2
Pontotoc	115.2	100.9	—14.3
Pottawatomie	87.4	78.7	—8.7
Pushmataha	116.4	111.2	—5.2
Roger Mills	110.1	107.2	—2.9
Rogers	99.8	122.9	+23.1
Seminole	77.3	87.7	+10.4
Sequoyah	125.9	110.7	—15.2
Stephens	101.4	101.5	+.1
Texas	108.4	134.3	+25.9
Tillman	103.4	78.8	—24.6
Tulsa	111.5	100.0	—11.5
Wagoner	85.2	96.4	+11.2
Washington	107.9	114.6	+6.7
Washita	79.9	114.0	+34.1
Woods	104.9	114.2	+9.3
Woodward	100.6	113.6	+13.0
Average	99.6	102.1	+2.5

*Utilization is on a paid basis and does not include reserves, operating expenses, or any estimated retroactive payments.

Released by the Committee on Prepaid Medical Care for the Information and Education of OSMA Members.

Diabetes Week: November 13-19

In its year-round effort to find unknown diabetics and guide them to medical care, the American Diabetes Association will sponsor Diabetes Week, November 13-19. The Association will work through 45 local affiliate associations and through nearly 900 committees on diabetes organized within the state and county medical societies.

Out of every 140 patients that come into a physician's office, *one* may be an unknown diabetic. The American Diabetes Association is urging physicians to test every patient who comes in the office during Diabetes Week, and to test all patients at least once a year.

Cooperation of the practicing physician is essential if unknown diabetics are to be brought under medical care and thus remain effective members of the community. Full cooperation of every physician in testing patients during Diabetes Week and throughout the year will serve as a high-type form of public relations and, in the end, will promote better medical service and goodwill.

Diabetes Control Will Be Discussed

Recent advances in diabetes control with oral therapy will be discussed by four outstanding men in the field Wednesday, November 9, at the University of Oklahoma Medical Center.

Speakers will be: Garfield G. Duncan, M.D., professor of medicine at the University of Pennsylvania School of Medicine, and director of the medical division of Pennsylvania Hospital and Benjamin Franklin Clinic, Philadelphia; Henry T. Ricketts, M.D., professor of medicine, University of Chicago School of Medicine; Stefan S. Fajans, M.D., associate professor of internal medicine, University of Michigan Medical School; Leonard L. Madison, M.D., associate professor of medicine, University of Texas Southwestern Medical School.

Recent research developments will be reviewed during a morning session. The afternoon and evening program will consist of a postgraduate short course on present status of the use of these oral agents in clinical practice.

Reservations may be made through the Postgraduate Office at the Medical Center.

Deaths

WILLIAM C. COLE, M.D.
1915-1960

William C. Cole, M.D., 44-year-old Lawton physician, died September 11, 1960.

A native of Lawton, Doctor Cole graduated from the University of Oklahoma School of Medicine in 1941. After interning in Wesley Hospital in Oklahoma City, he established his practice in Lawton.

In addition to his affiliation with his county medical society and the state medical association, Doctor Cole was a member of the Oklahoma City Clinical Society.

HERMAN O. GOWEY, M.D.
1877-1960

Herman O. Gowey, M.D., 82-year-old Kay county physician, died in Ponca City September 4, 1960.

Born in Bryton, Iowa in 1877, Doctor Gowey graduated from Keokuk Medical College, Keokuk, Iowa in 1907. The following year, he established his practice in Roosevelt, Oklahoma, later moving to Kildare and then to Washunga when he became medical director for the Kaw Indian Tribe. Doctor Gowey moved to Newkirk in 1913 and had remained there since that time.

In 1917, he established Newkirk's first hospital which he operated for a number of years.

Doctor Gowey had served as city health director in Newkirk and was physician and surgeon for the Santa Fe railway until his retirement in 1958.

More than keeping abreast . . . keeping ahead!

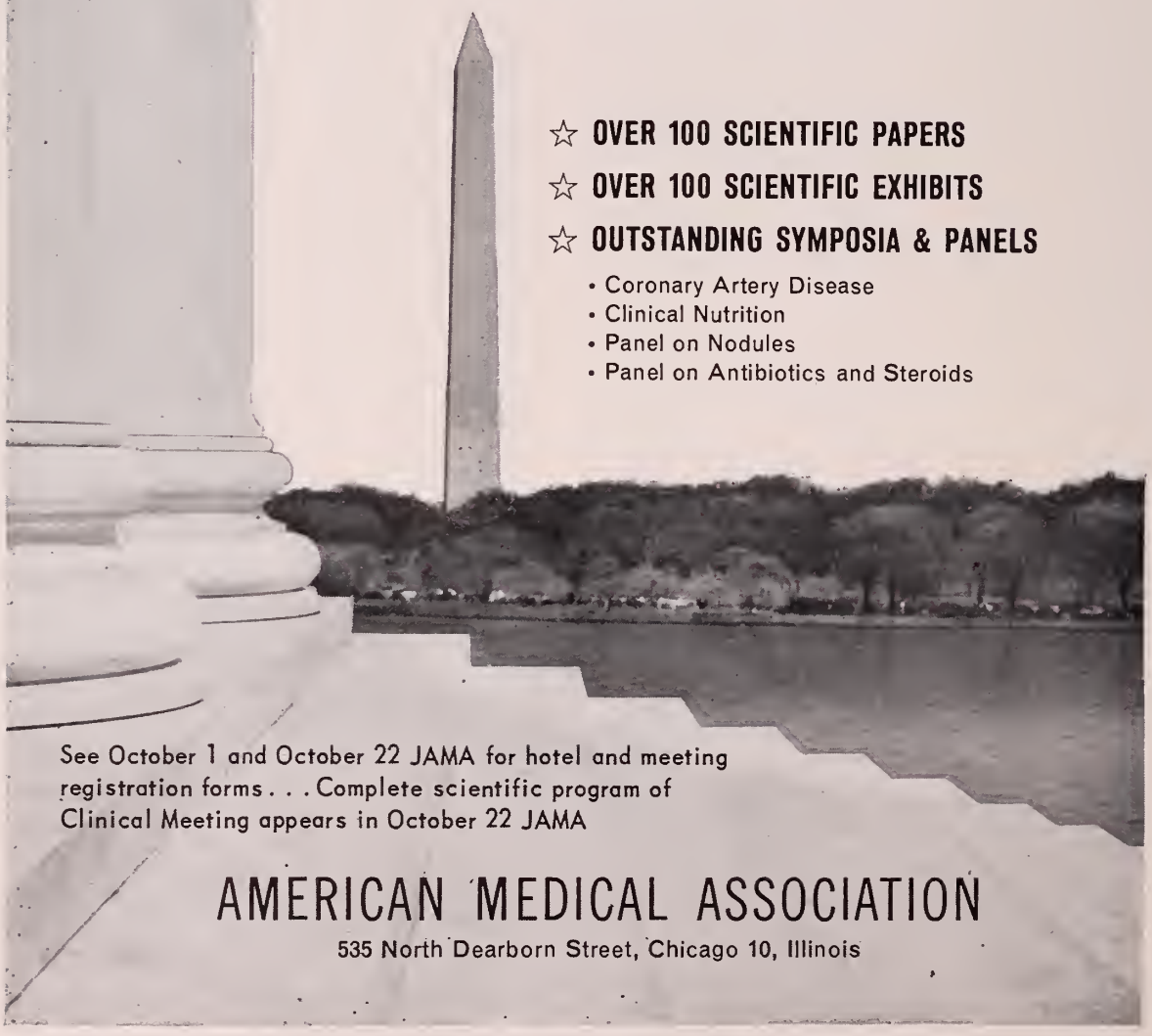
Plan to attend the

AMA 14th Clinical Meeting

Washington, D.C.

Registration and Exhibits
National Guard Armory
November 28, 29, 30, December 1

Use any means but by all means attend this session—an informative cross-section of medicine for all physicians.



☆ **OVER 100 SCIENTIFIC PAPERS**

☆ **OVER 100 SCIENTIFIC EXHIBITS**

☆ **OUTSTANDING SYMPOSIA & PANELS**

- Coronary Artery Disease
- Clinical Nutrition
- Panel on Nodules
- Panel on Antibiotics and Steroids

See October 1 and October 22 JAMA for hotel and meeting registration forms . . . Complete scientific program of Clinical Meeting appears in October 22 JAMA

AMERICAN MEDICAL ASSOCIATION

535 North Dearborn Street, Chicago 10, Illinois

Coming Meetings

University of Oklahoma Medical Center
POSTGRADUATE SHORT COURSES

Nov. 9—Medicine—Oral Hypoglycemic Agents (to be preceded by a morning research session).

Dec. 14—Anesthesiology—Anesthesia in General Practice.

Jan. 11—Pediatrics—Pediatric Radiology (tentative).

Feb. 8—Medicine—Cerebral Vascular Disease.

March 8—Urology—Symposium and C. B. Taylor Lectureship.

April 12—Surgery—Techniques of Cardiac Resuscitation.

May 10—Pediatrics—Infectious Diseases in Infancy and Childhood (tentative).

Courses, offering four hours of formal instruction, are held from 3:30 to 8:30 p.m., the second Wednesday of the month, in the Medical School Auditorium. Registration is $3 per session or $25 for the entire series. Additional information may be obtained by writing the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Oklahoma City, Oklahoma.

Fourteenth Annual
SOUTHWEST REGIONAL CANCER CONFERENCE
Academy of Medicine
October 23, 1960 **Fort Worth, Texas**

John R. McDonald, M.D., pathologist, Harper Hospital, Detroit, Michigan; Juan Angel del Regato, M.D., radioligist, Penrose Cancer Hospital, Colorado Springs; and Bentley P. Colcock, M.D., surgeon, Lahey Clinic, Boston, will be guest lecturers for the Fourteenth Annual Southwest Regional Cancer Conference to be held in Fort Worth, October 23, 1960.

Further details may be obtained by writing to the American Cancer Society, Tarrant County Unit, Suite 111-115 Westchester House, 554 Summit, Fort Worth 2, Texas.

CLINICAL SYMPOSIUM
on
PEDIATRIC ONCOLOGY
November 11-12, 1960 **Houston, Texas**

The University of Texas Postgraduate School of Medicine and The University of Texas M.D. Anderson Hospital and Tumor Institute will co-sponsor a Clinical Symposium on Pediatric Oncology in Houston on November 11-12, 1960.

Important aspects of chemotherapy, surgery and radiotherapy in the management of children with various types of neoplastic disease will be covered.

For further information write to Office of the Dean, The University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25, Texas.

CORONARY ARTERY DISEASE
Nov. 28-Dec. 2, 1960 **Texas Medical Center**
Houston, Texas

The University of Texas Postgraduate School of Medicine will present a symposium on Coronary Artery Disease, November 28 through December 2, 1960 at the Texas Medical Center, Houston, Texas. Six guest lecturers, augmented by a local faculty, will present the program.

This five-day program has been approved by the Academy of General Practice for Category I Credit. No tuition will be charged unless physicians attending desire AAGP credit in which case a $5.00 registration fee will be required.

For further information write: Office of the Dean, University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25, Texas.

Postgraduate Medical Study
in
OBSTETRICS
November 7, 8, 9, 1960 **Kansas City, Kansas**

The University of Kansas School of Medicine in cooperation with the Kansas State Obstetrical Society, the Kansas State Board of Health and the Kansas Medical Society will present a postgraduate medical study in Obstetrics, November 7, 8, 9, 1960 in the Battenfeld Auditorium in Kansas City, Kansas.

Detailed information is available from Department of Postgraduate Medical Education, University of Kansas School of Medicine, Kansas City 12, Kansas.

Southern Chapter
of the
AMERICAN COLLEGE OF CHEST PHYSICIANS
October 30-31, 1960 **St. Louis, Missouri**

The Southern Chapter of the American College of Chest Physicians will hold its 17th annual meeting at the Statler-Hilton Hotel in St. Louis, Missouri, October 30-31, 1960.

Further details may be obtained by writing the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

Postgraduate Course in
FRACTURES

November 3-5, 1960 Denver, Colorado

A postgraduate course in Fractures, sponsored by the University of Colorado School of Medicine, Division of Orthopedic Surgery and the office of postgraduate Medical Education will be offered November 3-5, 1960 in Denver.

Further information may be obtained by writing to the University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

9th ANNUAL CANCER SEMINAR
Arizona Division
American Cancer Society

January 12, 13, 14, 1961 Tidelands Motor Inn
Tucson, Arizona

"Changing Concepts in Tumor Formation and Therapy" will be the theme for the three-day meeting of the 9th Annual Cancer Seminar to be presented by the Arizona Division of the American Cancer Society on January 12, 13 and 14, 1961 in Tucson, Arizona.

Further information may be obtained by writing to the American Cancer Society, Arizona Division, 37 East Jackson Street, Tucson, Arizona.

ASSOCIATION OF MILITARY SURGEONS

October 30-November 1, 1960 Washington, D.C.
Mayflower Hotel

The 67th Annual Convention of the Association of Military Surgeons will meet October 30, 31, November 1, 1960 at the Mayflower Hotel in Washington, D.C.

There is no registration fee for the session and reserve officers attending the meeting may register for credit points.

For detailed information, write to the Association of Military Surgeons, 1726 Eye Street, N.W., Washington 6. D.C.

INTERSTATE POSTGRADUATE MEDICAL ASSOCIATION

October 31-November 3, 1960 Pittsburgh, Pennsylvania
Pittsburgh Hilton Hotel

The 45th Scientific Assembly of the Interstate Postgraduate Medical Association will be held at the Pittsburgh Hilton Hotel in Pittsburgh, Pennsylvania October 31—November 3, 1960. The assembly is acceptable for a maximum of 16½ hours of Category 1 credit by the American Academy of General Practice.

Programs may be secured by writing to Roy T. Ragatz, Executive Director, P.O. Box 1109, Madison 1, Wisconsin.

THE AMERICAN COLLEGE OF PHYSICIANS

Schedule of Postgraduate Courses

Autumn-Winter, 1960-1961

The following postgraduate courses have been listed by the American College of Physicians:

THE PHYSIOLOGIC BASIS OF ELECTROCARDIOGRAPHY
November 7-11, 1960 University of Utah
College of Medicine
Salt Lake City, Utah

RECENT ADVANCES IN DRUG THERAPY
January 9-13, 1961 University of Washington
School of Medicine
Seattle, Washington

MECHANISMS OF DISEASE
January 16-20, 1961 Columbia University
College of Physicians
and Surgeons
New York City, New York

SELECTED TOPICS IN INTERNAL MEDICINE
February 20-24, 1961 University of Oklahoma
School of Medicine
Oklahoma City, Oklahoma

Additional information may be obtained by writing to The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania.

COURSE IN LARYNGOLOGY AND BRONCHOESOPHAGOLOGY

October 17-20, 1960 University of Illinois
College of Medicine

Chicago, Illinois

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in Laryngology and Broncheosophagology from October 17 through October 29, 1960, under the direction of Paul H. Holinger, M.D.

Registration will be limited to fifteen physicians who will receive instruction by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants may write to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

Auxiliary News

SWAT

*S*afe *W*ater *A*ctivity *T*raining, striking primarily at the causes of accidents and deaths in water sports, is the National Safety theme for 1960-61. Our National Safety Committee proposes we begin our campaign at home-base: by encouraging "Every Doctor's Child Learn to Swim" as a primary objective.

The need and basis are obvious: 300,000 American families have private swimming pools; 26 million persons go fishing each year; almost 8,000,000 recreational boats are in use; water skiing, skin and scuba diving are increasing. It is estimated that by 1970 40% of our population will be participating in some phase of water sports.

Your local Safety Chairman will supply you with all necessary details. Our State Safety Chairman is Mrs. Robert S. Ellis, 1908 Huntington Drive, Oklahoma City.

In addition to this Number 1 project, additional ones are listed:

2. Poison Control (Community alertness to poison control centers and hazards in the home).

3. Senior Citizens (Accident prevention in the care of the aged).

4. Traffic Safety (Driver's Educational courses, use of safety awards locally, and the Carol Lane program).

5. Gem's Program (Special training for baby-sitters: Gems means "Good Emergency Mother Substitutes").

6. Home and Farm Safety (Cooperation with Safety Councils, police and fire departments, Red Cross, etc.).

Whatever your local needs, every county auxiliary can concentrate on any one of these projects or on all: we can never overrate Safety!

Required Reading

In some organizations so-called "Required Reading" has an ominous connotation. Not so with Auxiliary; our required reading is, of course, the National Bulletin. It is well-written, informative, and all-inclusive in coverage of our work. The cost is only $1.00; it is published in September, January, March and May. We need to subscribe 100%. If you do not have a local chairman, send your subscription immediately to Mrs. Lawrence Thompson, Jr., 4041 South Richmond, Tulsa. Every member needs the Bulletin; you really cannot afford being without it—it's that good.

Are you constantly being questioned by people interested in all magazine articles? Following the current trend toward predigested literature, we feel that medical wives would readily provide the buying public necessary for current magazine articles dealing with health. In September several questions were levelled at me concerning Harper's: *A Proposition for Women and Epilepsy and the Law.* Great interest is also shown in the forthcoming special supplement in the same magazine, *The Crisis in American Medicine.* Present coverage, whether agreeable, slanted, or completely misleading, indicates there will be no future lag in our reading required to be intelligent and informed.

ANNUAL FALL CONFERENCE

October 24, 1960 — State Medical Building

Coffee and Registration: 9:30 a.m. — Conference: 10 a.m.

Book Reviews

Pardon My Sneeze, Milton Millman, M.D., Kuchirka Books, 1960, pp. 215, $4.00.

"Pardon My Sneeze" is a review of allergy with a humorous slant, written for the layman, in order to catch and hold his interest. This is the second edition.

This monograph is intended primarily for allergy patients and the families who care for them so that they may better understand the disorder and its management.

It covers the field of allergy fairly well from a non-professional standpoint and illustrates many points by cartoons which are evidently meant to stress the points and clarify them.

The simplicity of the monograph is clouded by a rather voluminous technical desertation with minute details as to environment, diets, recipes and food diaries. These passages are intermingled with more technical passages concerning this *new* specialty of medicine, emphasizing an endless series of injections, environmental controls, restrictions and restraints. Such phases could have an adverse effect on the average person and tend to make him believe that his allergies are too mystifying, complicated and burdensome to even attempt to correct. This belief is already prevalent among the majority of laymen and many professional men. Too, the "gagmen" of TV and radio have twisted allergy around so much trying to squeeze a bit of humor from it that the true meaning of allergy has been lost. (Allergy means an altered reaction of the individual to a foreign protein and/or his environment.)

The rhetoric is very elementary and is often not of the "King's English." However; this, the type or print, and the paper used facilitates easy reading. The questions and answers simplify the subject though some of the causative factors mentioned in the text are not agreed upon by all allergists. Notwithstanding this fact it is fairly representative of the thinking and practices of the majority of men in the field.

The field of allergy although broad in scope and young in comparison with other specialties, is not as mystifying as it might seem. Neither is the management or control of the disease so complicated the sufferer must live in a glass house and eat only broccoli and cauliflower and endure endless injections until his life is as miserable as that of the ancient monks who wore hair shirts; nor is it a disease that only the rich can afford.

The layman must be educated against such erroneous ideas and be given a true picture. If "Pardon My Sneeze" can accomplish this end, it will have served a purpose in medical literature. If it has in the layman's mind imprinted only the facetious and complicated it has failed. Only a layman can answer this question. From a professional standpoint it has touched on all of the adverse phases but I believe the good material and knowledge imparted outweighs this concept.—*Johnny Blue, M.D.*

Fifty Years of Neurosurgery: A Personal Story, Ernest Sachs, M.D., Vantage Press, Inc., 1958, New York, pp. 186, price $3.50.

This book is the autobiography of Doctor Ernest Sachs, long the Professor of Neurosurgery at Washington University in St. Louis. It is, in addition, a historical resume of the development of neurosurgery as a specialty. Doctor Sachs was born in 1879 in New York City. The guidance towards a scholarly career by his father, Doctor Julius Sachs, Professor of Secondary Education at Columbia University, is constantly evident even during his early years. During his college days at Harvard University, Doctor Sachs was stimulated to pursue a medical career by Doctor Walter Cannon, the future Professor of Physiology who at that time was an assistant in biology, and by his uncle, Doctor Bernard Sachs, a New York neurologist. At Johns Hopkins Medical School he was influenced by many members of the faculty but most notably Doctors Osler, Halstead and Harvey Cushing. Probably the

greatest influence in his choice of neurological surgery as a specialty, however, was Sir Victor Horsley of London with whom Doctor Sachs trained.

After a year of surgical practice in New York, Doctor Sachs accepted a position in the Department of Surgery of the newly organized Washington University School of Medicine in St. Louis with the special objective of developing a division of neurological surgery. Doctor Sachs details the many trials and tribulations that went in developing his own outstanding neurosurgical division as well as those of neurosurgery as a struggling young medical specialty. The book's interest is enhanced by many personal anecdotes concerning the author's teaching experiences, the development of professional neurosurgical societies, interesting sidelights concerning the many prominent neurosurgeons who trained in his clinic, and highlights of various medical meetings that he attended throughout the world.

In May, 1949, he retired from Washington University and was appointed Research Fellow in Physiology at Yale University School of Medicine. Here he has continued his writings relating to neurological surgery and medical history.

This small book should appeal to anyone interested in the history of neurological surgery.—*Harris D. Riley, Jr., M.D.*

Warning to Physicians and Nurses

Physicians and nurses who do purchasing for physicians' offices are warned by a Washington County Attorney who recently reported that a salesman purporting to represent a reliable uniform company, had called upon the office of a Bartlesville physician, taking an order for nurses' uniforms and receiving a check in payment thereof.

When the merchandise failed to arrive, an investigation disclosed that this person had, for the past twelve years been engaged in defrauding doctors, nurses, dentists and others, through this same scheme and was in no way legally connected with the firm he was purported to represent.

A check of proper credentials should be made before purchasing merchandise from an unknown salesman.

PHYSICIAN PLACEMENT

General Practice

Johnny Bill Delashaw, U.S.P.H.S. Hospital, Wyman Park Drive and 31st Street, Baltimore 11, Maryland, age 27, married, University of Texas Medical Branch, 1959, available July 1960.

John William Kennard, M.D., Blowing Rock Hospital, Blowing Rock, North Carolina; married; age 29; Bowman Gray School of Medicine, 1956; veteran; available August 29, 1960.

Robert D. McKay, M.D., Edgewood, Texas; Age 70; married; University of Illinois, 1907; available now.

Carle H. Schroff, M.D., 3811 State Line, Kansas City 11, Missouri: Age 31; married; University of Kansas, 1959; veteran; available August, 1960.

Internal Medicine

Jeanne B. Johnson, M.D., 4917 SE Cornell Drive, Bartlesville, Oklahoma; age 31; married; University of Oklahoma School of Medicine, 1955; specialty, internal medicine; eligible, immediately.

Thomas Turner Walton, Jr., M.D., 7375 Churchill, Detroit, Michigan: Age 29; married; Baylor College of Medicine, 1955; Board eligible; veteran; specialty, internal medicine; desires group or associate practice; eligible, July 1961.

Locum Tenens

Harold W. Calhoon, M.D., Wesley Hospital, Oklahoma City. One year residency in Internal Medicine. Available July 1 to September 15th, 1960.

Russell M. Preston, M.D., 476 San Juan, Oak Harbor, Washington, desires six month's work in General Practice between time of separation from military service to beginning of residency training, January-July, 1960.

Obstetrics and Gynecology

Gerald R. Keilson, M.D., Medical Arts Building, Dallas, Texas, age 31, married, University of Texas, 1953, board qualified, veteran, available in July 1960.

Juan C. Ruiz, M.D., 350 Park Ave., Lexington, Kentucky; age 36; married; University of San Marcos Medical School 1952; no military obligations; available July 1, 1960.

Robert B. Williams, M.D., 27 Normandy Road, Auburndale 66, Massachusetts; married; age 30; Tulane University, 1955; board certified; available July 1, 1961.

Orthopedics

Newsom Stool, M.D., c/o Mayo Clinic, Rochester, Minnesota; age 30; married; Baylor University 1953; Board eligible; available July 1960.

Urology

Alex Grossman, M.D., V.A. Center, Temple, Texas, 42, married, University of Texas, 1951, board certified, veteran, available now.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association, October, 1935.

Personal Experiences with Prostatic Resection

Henry S. Browne, M.D.
Tulsa, Oklahoma

It is with some diffidence that I discuss a subject which has been written about by many men with much more experience than I have had. The early literature gave the impression that prostatic resection, while somewhat technical, was practically devoid of discomfort or danger to the patient. The potential dangers, and they are ever present, were barely mentioned, if at all.

In my first thirty cases, five resulted in temporary, and one in permanent incontinence—in a case of malignancy who has since died. This, I finally realized, was due to the fact that while the cut was being made, the sheath would creep outward unless it was firmly held, and I have had no such cases since. I have later cystoscoped four of these men and in each instance the verumontanum had been shaved off. High post-operative temperature was the rule, though typically the pulse rate remained below ninety and the patient's general condition was good. The sixth patient died in three weeks from a septic condition, caused, I believe, by resecting too deeply and getting through the bladder wall. One developed a high temperature as soon as the retention catheter was removed, which lasted a week. Cystoscopy has since shown that the entire trigone nearly through the bladder wall had been resected. The prompt reinsertion of the catheter without a doubt saved his life.

I, therefore developed an early and lasting respect for this procedure, and realized that the more equipment one had the better off one was. This includes various examining telescopes and duplicate operating parts with the new telescopes which give far better vision than the original operating telescopes. I had done thirty cases before I felt reasonably sure of where I was working at all times. In spite of the above mishaps described in my early cases the results were good enough and the post-operative course was superior to that of prostatectomy, that I was encouraged to continue and my results are getting better and complications less all the time as I become more and more familiar with the procedure. I have done ninety resections and in the same period two prostatectomies, because I could not introduce the instrument into the bladder. I am, therefore, one of those who believe that resection is applicable in practically every case of prostate enlargement.

I am thoroughly convinced that prostatic resection is the answer to an old man's prayer. The easy convalescence and almost complete lack of post-operative discomfort still amaze me. It will accomplish all that prostatectomy ever did and leave a man with his prostate. When done correctly the results are uniformly excellent and one such operation will convert the most confirmed prostatectomist into an ardent resectionist. The poor results and enormous mortality of some men have given the procedure an undeserved bad name in certain quarters. It is one of the most delicate, difficult and technical operations in surgery and when done properly it is followed by brilliant results, but when done improperly it is fraught with the gravest dangers to the patient. The rectoscope is a marvelous instrument, but it can become a deadly weapon. Any man who has done prostatic resection and condemns it, thereby convicts himself of being unable to do it properly.

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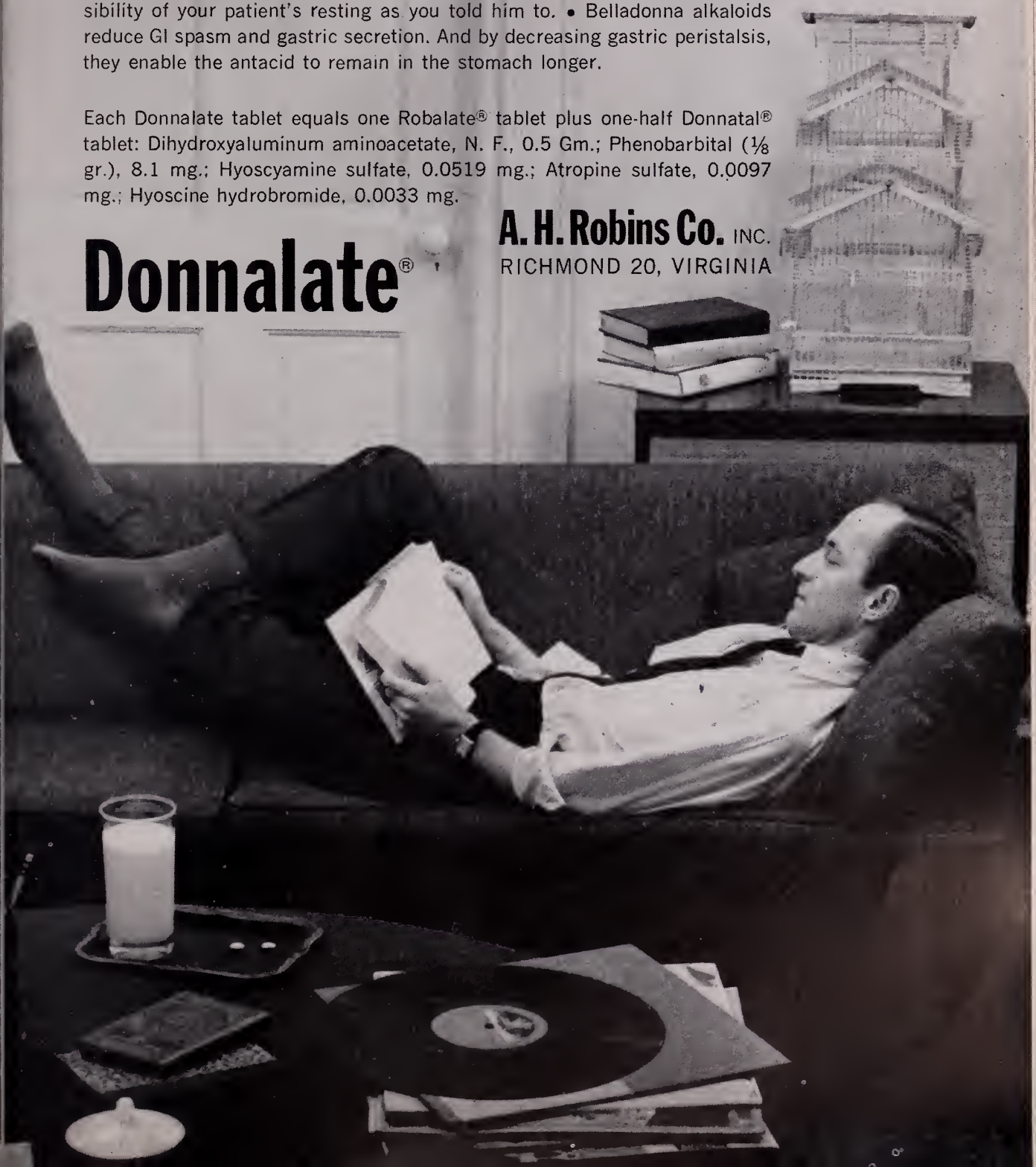
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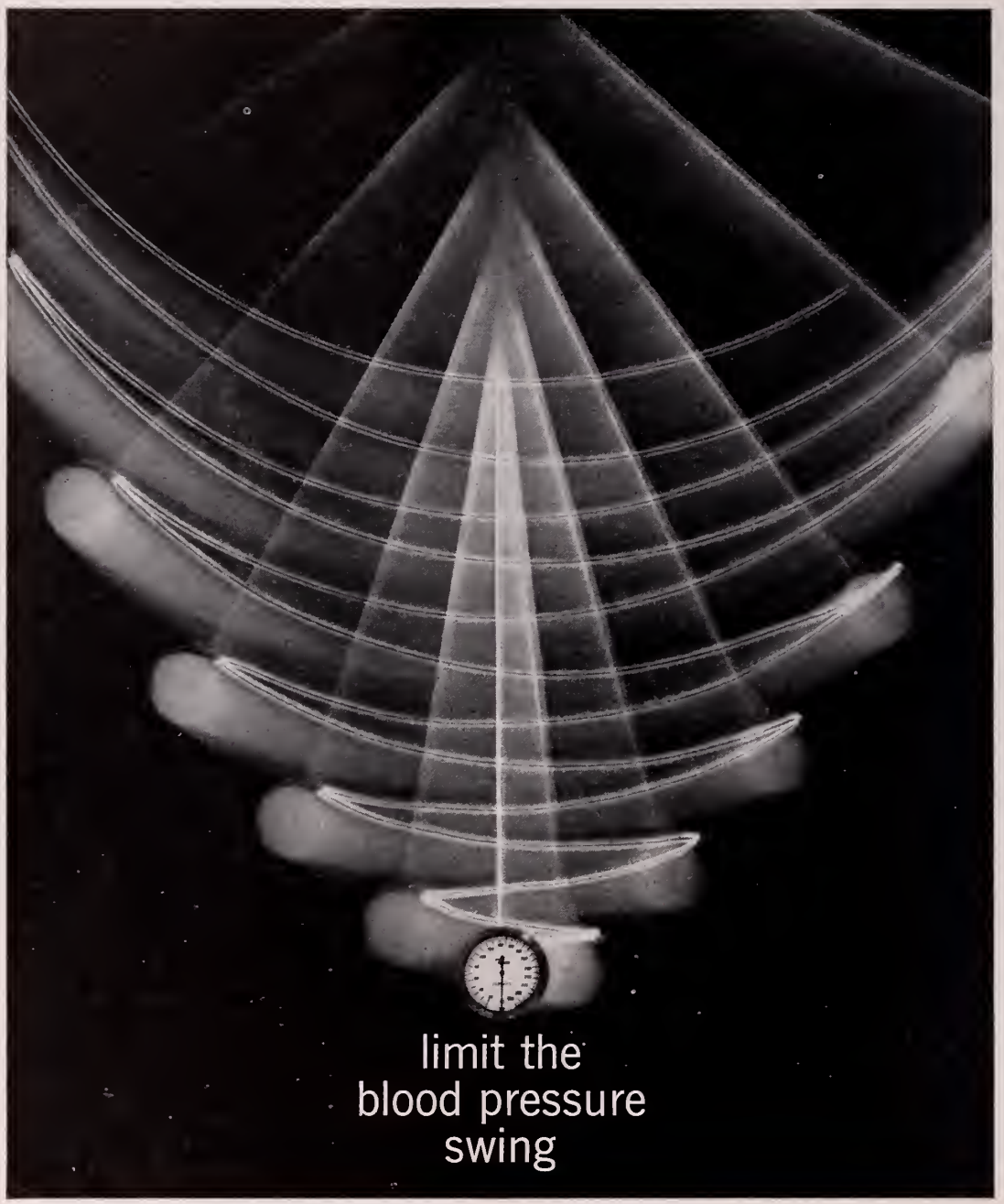
1. Weissberg, G.: Clin. Med., June 1960.

2. Spoor, H. J.: N. Y. St. J. Med., Oct. 15, 1958.

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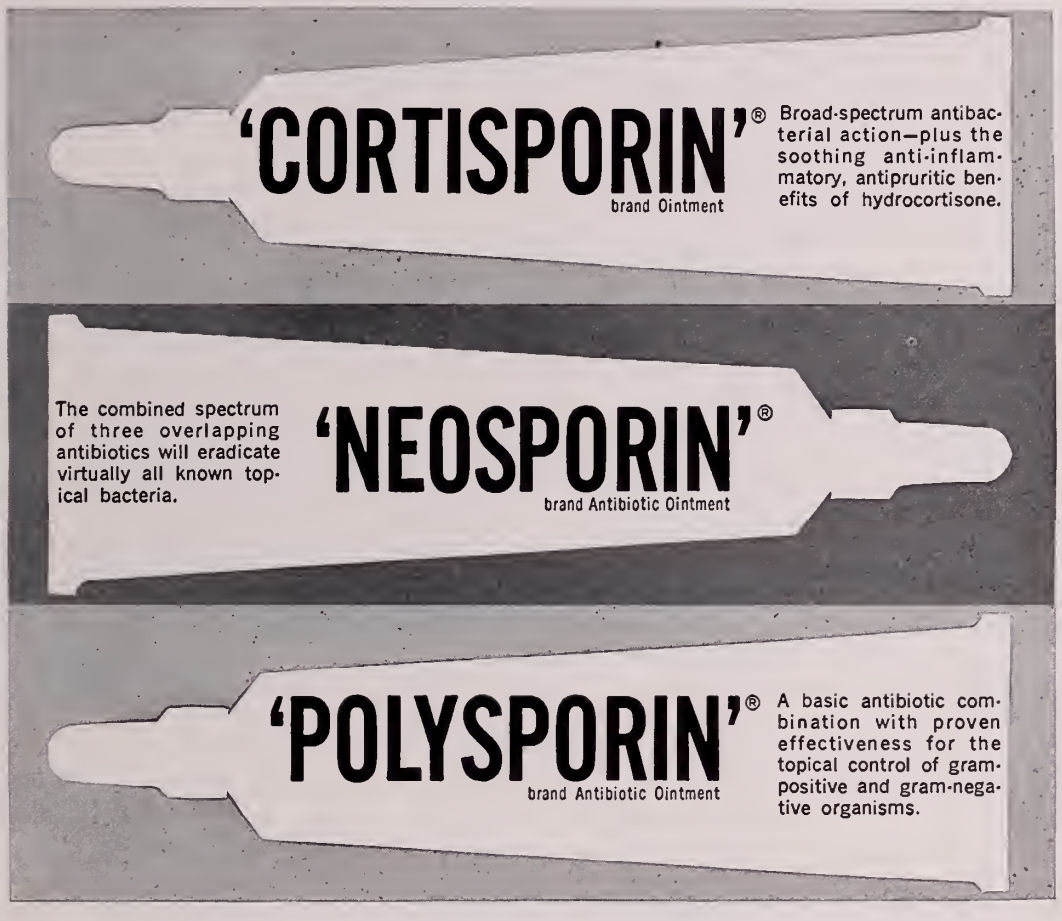
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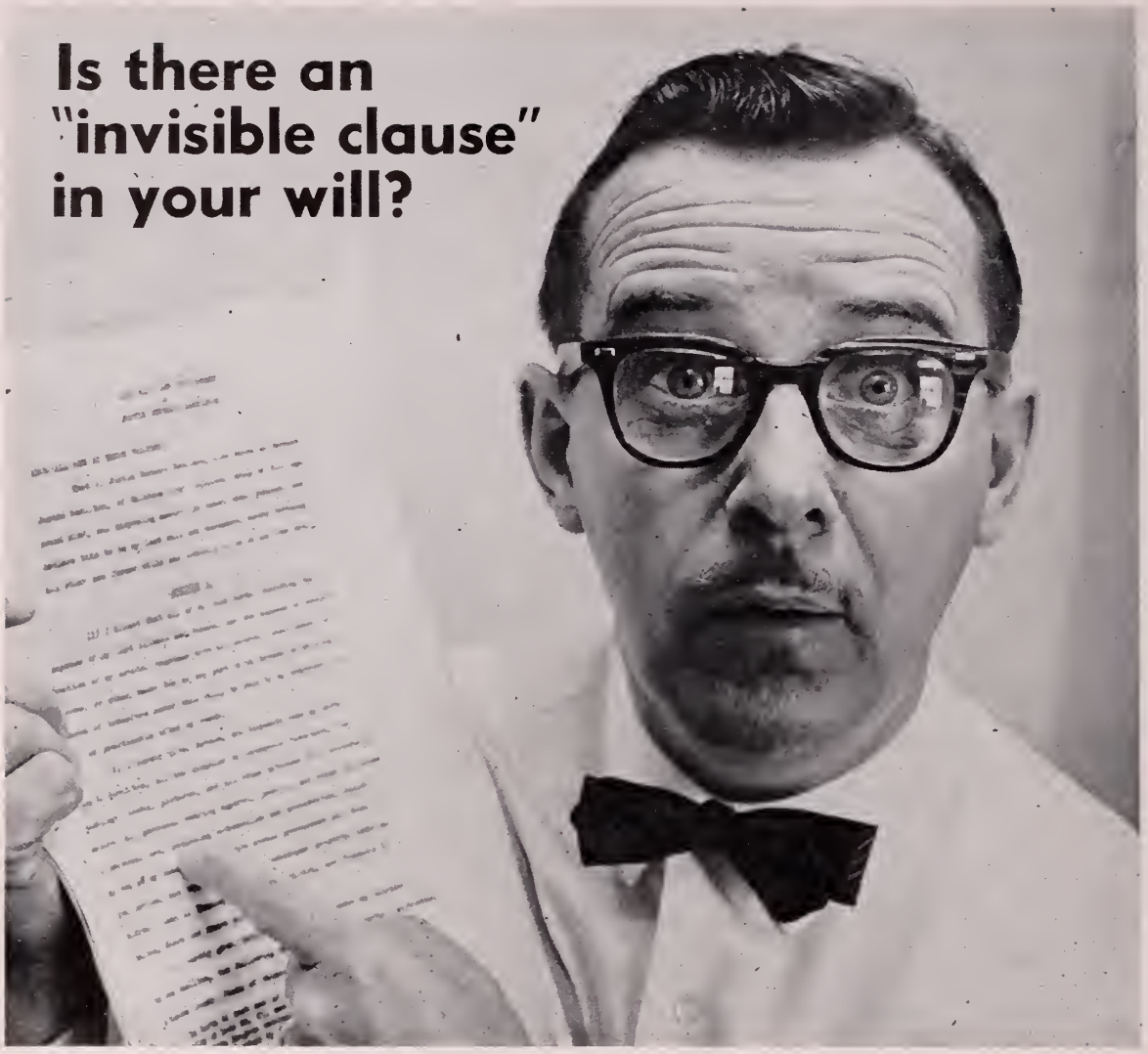
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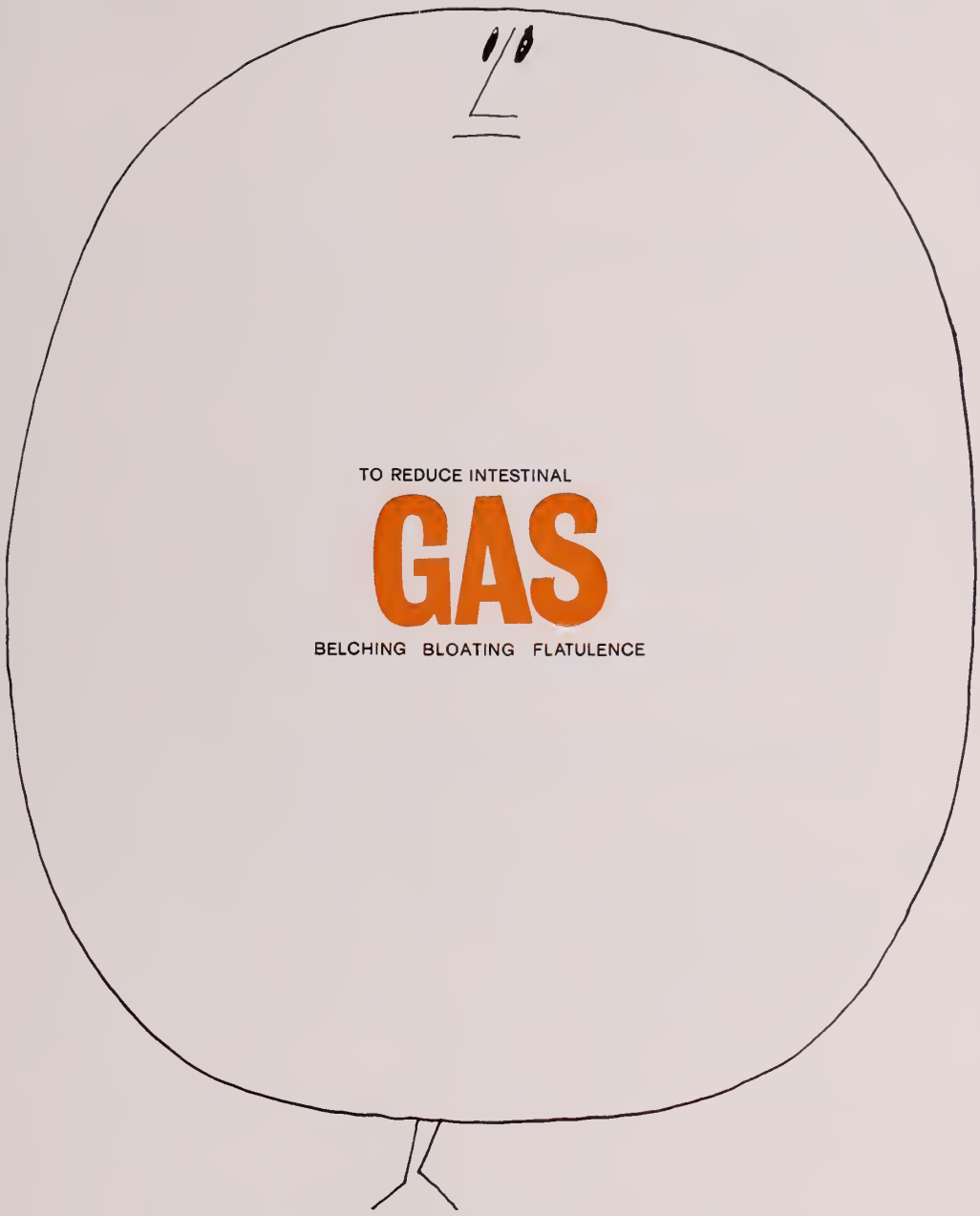
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Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

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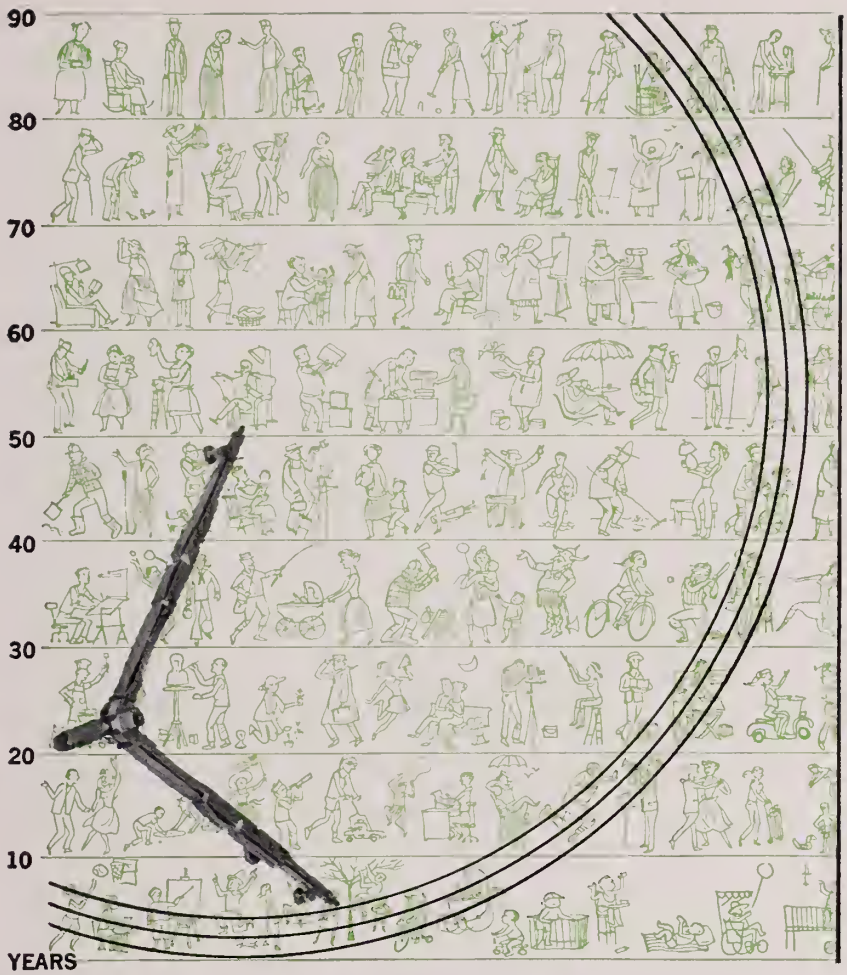
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ATARAX ENCOMPASSES MORE PATIENT NEEDS...LETS YOU CHART A SAFER, MORE EFFECTIVE COURSE TO TRANQUILITY

ATARAX has a wide range of flexibility . . . from mild adult tensions and anxieties to full-blown alcoholic episodes . . . from the behavior disorders of childhood to the emotional problems of old age. Why? Because it gives you maximum adaptability of dosage . . . works quickly and predictably . . . is unsurpassed in safety.

ATARAX offers extra pharmacologic actions especially useful in certain troublesome conditions. It is antihistaminic and mildly antiarrhythmic, does not stimulate gastric secretions. Hence it is well suited to the needs of your allergic, cardiac and ulcer patients.

Have you discovered all the benefits of ATARAX?

Dosage: Adults, one 25 mg. tablet, or one tbsp. Syrup q.i.d. Children, 3-6 years, one 10 mg. tablet or one tsp. Syrup t.i.d.; over 6 years, two 10 mg. tablets or two tsp. Syrup t.i.d.

Supplied: Tiny 10 mg., 25 mg., and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution: 25 mg./cc. in 10 cc. multiple-dose vials; 50 mg./cc. in 2 cc. ampules. Prescription only.

Complete bibliography available on request.

ATARAX®

(BRAND OF HYDROXYZINE)

PASSPORT TO TRANQUILITY



New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being™

VITERRA® for vitamin-mineral supplementation
• capsules • tastitabs® • therapeutic capsules



Use of pHisoHex for washing the skin augments any other therapy for acne — brings better results. Now, pHisoAc Cream, a new acne remedy for topical application, suppresses and masks lesions — dries, peels and degerms the skin. Together, pHisoHex and pHisoAc provide basic complementary topical therapy for acne.

pHisoHex, antibacterial detergent with 3 per cent hexachlorophene, removes soil and oil better than soap — provides **continuous** degerming action when used often. pHisoHex is nonalkaline, nonirritating and hypoallergenic.

When pHisoAc Cream is used with pHisoHex washings, it unplugs follicles, helps prevent development of comedones, pustules and scarring. New pHisoAc Cream is flesh-toned, not greasy. It contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent, and hexachlorophene 0.3 per cent in a specially prepared base. pHisoAc is pleasant to use.

A new "self-help" booklet, **Teen-aged? Have acne? Feel lonely?,** gives important **psychologic first aid** for patients with acne and describes the proper use of pHisoHex and pHisoAc. Ask your Winthrop representative for copies.

pHisoAc is available in 1½ oz. tubes and pHisoHex is available in 5 oz. plastic squeeze bottles and in bottles of 16 oz.

pHisoHex® and pHisoAc for acne

trademark

Winthrop
LABORATORIES
New York 18, N. Y.

In active people who won't take time to eat properly, MYADEC can help prevent deficiencies by providing comprehensive vitamin-mineral support. Just one capsule a day supplies therapeutic doses of 9 important vitamins plus significant quantities of 11 essential minerals and trace elements. MYADEC is also valuable in vitamin depletion and stress states, in convalescence, in chronic disorders, in patients on salt-restricted diets, or wherever therapeutic vitamin-mineral supplementation is indicated.

Each MYADEC Capsule contains: VITAMINS: Vitamin B_{12} crystalline—5 mcg.; Vitamin B_2 (riboflavin)—10 mg.; Vitamin B_6 (pyridoxine hydrochloride)—2 mg.; Vitamin B_1 mononitrate—10 mg.; Nicotinamide (niacinamide)—100 mg.; Vitamin C (ascorbic acid)—150 mg.; Vitamin A—(7.5 mg.) 25,000 units; Vitamin D—(25 mcg.) 1,000 units; Vitamin E (d-alpha-tocopheryl acetate concentrate)—5 I.U. MINERALS: (as inorganic salts) Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg. Bottles of 30, 100 and 250.

a quick "bite"...
then back
to the grind?
nutritional
deficiency's
not far behind.
prescribe...

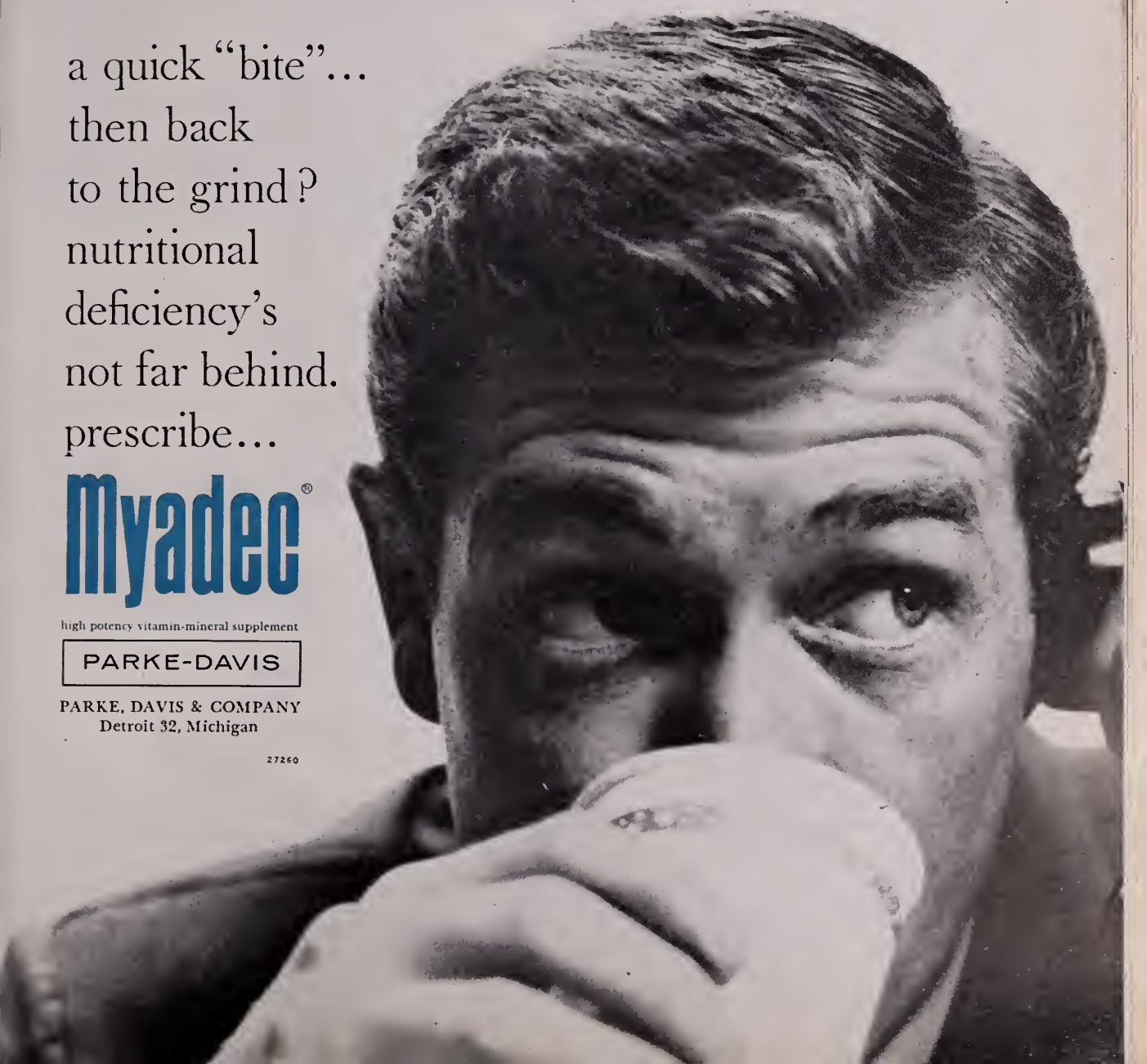
Myadec®

high potency vitamin-mineral supplement

PARKE-DAVIS

PARKE, DAVIS & COMPANY
Detroit 32, Michigan

27260





To the relief of musculoskeletal pain, new MEDAPRIN* adds restoration of function

Analgesics offer temporary relief of musculoskeletal pain, but they merely *mask* pain rather than getting at its *cause*. New Medaprin, in addition to bringing about prompt subjective improvement, promotes the *restoration of normal function* by suppressing the inflammation that *causes* the pain.

Medaprin, Upjohn's new analgesic-steroid combination, contains aspirin plus Medrol,** the corticosteroid with *the best therapeutic ratio in the steroid field.*† Instead of suffering recurrent discomfort because of the "wearing off" of analgesics, the patient on Medaprin experiences a smooth, *extended* relief and more normal mobility.

Indications: Medaprin is indicated in mild-to-moderate rheumatic and musculoskeletal conditions, including rheumatoid arthritis, deltoid bursitis, low back pain, neuralgia, synovitis, fibromyositis, osteoarthritis, low back sprain, traumatic wrist, sciatica, and "tennis elbow."

Dosage: The recommended dosage is 1 tablet q.i.d. The usual cautions and contraindications of corticotherapy should be observed.

Supplied: In bottles of 100 and 500.

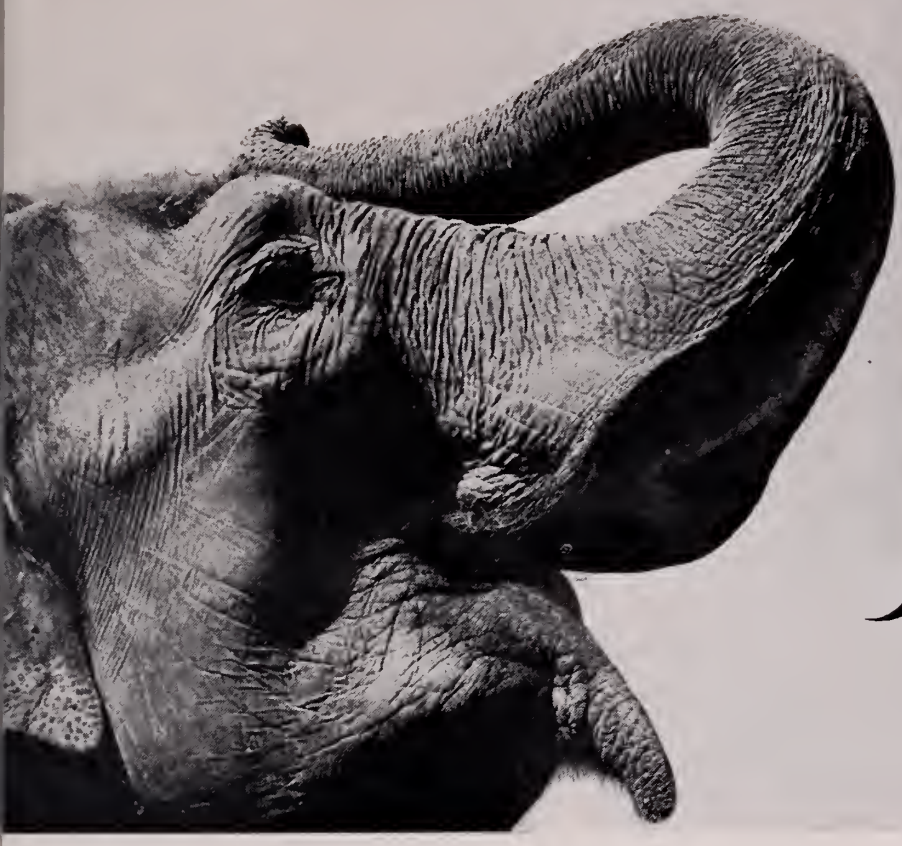
Formula: Each Medaprin tablet contains

- 300 mg. acetylsalicylic acid, for prompt relief of pain
- 1 mg. Medrol, to suppress the causative inflammation
- 200 mg. calcium carbonate, as buffer

*TRADEMARK **TRADEMARK, REG. U. S. PAT. OFF.—METHYLPREDNISOLONE, UPJOHN
†RATIO OF DESIRED EFFECTS TO UNDESIRED EFFECTS

The Upjohn Company, Kalamazoo, Michigan

Upjohn



"Sometimes, when I have a running nose, I'd like to clear it with TRIAMINIC®— just to check out that systemic absorption business.

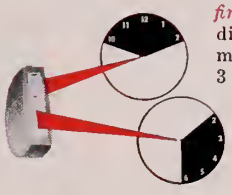
Reaches all nasal and paranasal membranes, huh?"

...and for humans with RUNNING NOSES...

You can't reach the entire nasal and paranasal mucosa by putting medication in a man's nostrils — any more than you could by trying to pour it down an elephant's trunk. TRIAMINIC, by contrast, reaches *all* respiratory membranes *systemically* to provide more effective, longer-lasting relief. And TRIAMINIC avoids topical medication hazards such as ciliary inhibition, rebound congestion, and "nose drop addiction."

Indications: nasal and paranasal congestion, sinusitis, postnasal drip, upper respiratory allergy.

Relief is prompt and prolonged because of this special timed-release action:



first— the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then— the core disintegrates to give 3 to 4 *more* hours of relief

Each Triaminic timed-release Tablet provides:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient.

Each timed-release Triaminic Juvelet® provides:
½ the formulation of the Triaminic Tablet.
Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

Each tsp. (5 ml.) of Triaminic Syrup provides:
¼ the formulation of the Triaminic Tablet.
Dosage (to be administered every 3 or 4 hours):
Adults—1 or 2 tsp.; *Children 6 to 12*—1 tsp.;
Children 1 to 6 — ½ tsp.; *Children under 1* — ¼ tsp.

TRIAMINIC®

timed-release tablets, juvelets, and syrup

STOP *running noses* *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

for bacterial pneumonias

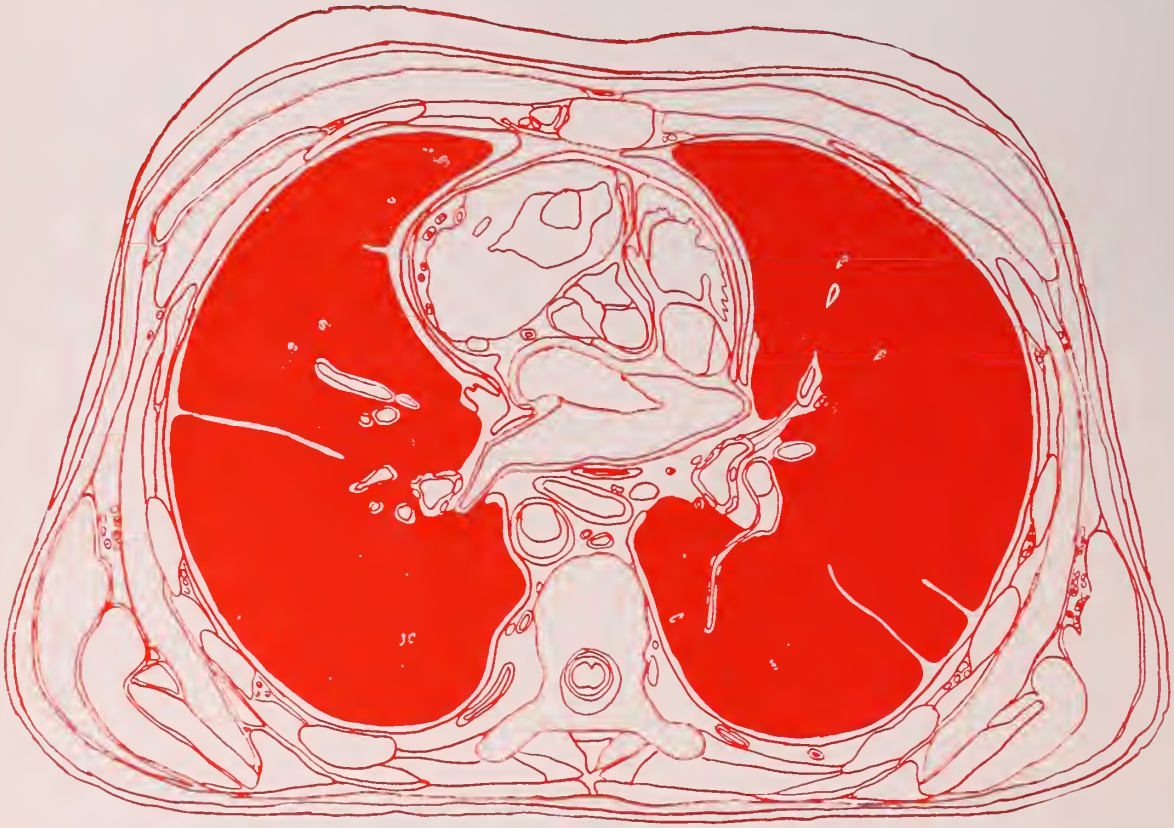
Tetrex®

capsules

The Original Tetracycline Phosphate Complex

U. S. PAT. NO. 2,791,609

effective control of pathogens...with an unsurpassed record of safety and tolerance



BRISTOL LABORATORIES, SYRACUSE, NEW YORK

BRISTOL™

SUPPLY: TETREX Capsules—tetracycline phosphate complex—each equivalent to 250 mg. tetracycline HCl activity. Bottles of 16 and 100.

TETREX Syrup—tetracycline (ammonium polyphosphate buffered) syrup—equivalent to 125 mg. tetracycline HCl activity per 5 ml. teaspoonful. Bottles of 2 fl. oz. and 1 pint.

"Sometimes, I almost wish I were human so I could clear up this close-up, clogged-up nose of mine with TRIAMINIC®."

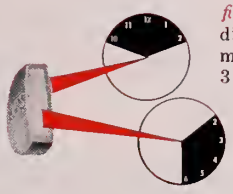


...and for humans with CLOGGED-UP NOSES...

Nasal congestion often persists with "bulldog tenacity." Nose drops and sprays often reach only the more superficial respiratory membranes and therefore fail to provide adequate relief. Furthermore, they may add to the patient's misery by producing rebound congestion, ciliary inhibition, and eventually "nose drop addiction." TRIAMINIC reaches *all* nasal and paranasal membranes *systemically* – provides more complete, longer-lasting relief while it avoids the harmful side effects associated with topical medication.

Indications: nasal and paranasal congestion, sinusitis, postnasal drip, upper respiratory allergy.

Relief is prompt and prolonged because of this special timed-release action:



first – the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then – the core disintegrates to give 3 to 4 *more* hours of relief

Each Triaminic timed-release Tablet provides:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient.

Each timed-release Triaminic Juvelet® provides:
½ the formulation of the Triaminic Tablet.
Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

Each tsp. (5 ml.) of Triaminic Syrup provides:
¼ the formulation of the Triaminic Tablet.
Dosage (to be administered every 3 or 4 hours):
Adults – 1 or 2 tsp.; *Children 6 to 12* – 1 tsp.;
Children 1 to 6 – ½ tsp.; *Children under 1* – ¼ tsp.

TRIAMINIC®

timed-release tablets, juvelets, and syrup

STOP *running noses* *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

Raise the Pain Threshold

WITH MAXIMUM SAFE ANALGESIA

Phenaphen with Codeine provides intensified codeine effects with control of adverse reactions. It renders unnecessary (or postpones) the use of morphine or addicting synthetic narcotics, even in many cases of late cancer.

Three Strengths —

PHENAPHEN NO. 2
Phenaphen with Codeine Phosphate ¼ gr. (16.2 mg.)

PHENAPHEN NO. 3
Phenaphen with Codeine Phosphate ½ gr. (32.4 mg.)

PHENAPHEN NO. 4
Phenaphen with Codeine Phosphate 1 gr. (64.8 mg.)

Also —

PHENAPHEN In each capsule

Acetylsalicylic Acid 2½ gr. . (162 mg.)
Phenacetin 3 gr. (194 mg.)
Phenobarbital ¼ gr. (16.2 mg.)
Hyoscyamine sulfate (0.031 mg.)

PHENAPHEN® WITH CODEINE

Robins

Robins

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Ethical Pharmaceuticals of Merit since 1878

Clinical results with Trancopal®

	Excellent	Good	Fair	Poor	Tota
LOW BACK SYNDROMES					
Acute low back strain	25	19	8	6	58
Chronic low back strain	11	5	1	1	18
"Porters' syndrome"*	21	5	1	1	28
Pelvic fractures	2	1	—	—	3
NECK SYNDROMES					
Whiplash injuries	12	6	2	1	21
Torticollis, chronic	6	2	3	2	13
OTHER MUSCLE SPASM					
Spasm related to trauma	15	6	1	—	22
Rheumatoid arthritis	—	18	2	1	21
Bursitis	2	6	1	—	9
TENSION STATES	18	2	4	3	27
TOTALS	112 (51%)	70 (32%)	23 (10%)	15 (7%)	220 (100%

*Over-reaching in lifting heavy bags resulting in sprain of upper, middle, and lower back muscles.

Dosage: **Adults, 200 or 100 mg. orally three or four times daily.**
Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

How Supplied: Trancopal Caplets®
200 mg. (green colored, scored), bottles of 100.
100 mg. (peach colored, scored), bottles of 100.

Winthrop LABORATORIES, New York 18, N. Y.

in common Gram-positive infections due to susceptible organisms

YOU CAN COUNT ON

TAO®

(triacetyloleandomycin)

even in many resistant Staph*



1,928 published cases in the two years since TAO was released for general use show:

94.3% effectiveness in respiratory infections (617 cases including tonsillitis, staphylococcal and streptococcal pharyngitis, bronchitis, infectious asthma, broncho-pneumonia, lobar pneumonia, bronchiectasis, lung abscess, otitis.) **You can count on TAO.**

92% effectiveness in skin and soft tissue infections (900 cases including pyoderma, impetigo, acne, infected skin disorders, wounds, incisions and burns, furunculosis, abscess, cellulitis, chronic ulcer, adenitis.) **You can count on TAO.**

87.1% effectiveness in genitourinary infections (349 cases including urethritis, cystitis, pyelitis, pyelonephritis, orchitis, pelvic inflammation, acute gonococcal urethritis, lymphogranuloma venereum.) **You can count on TAO.**

75.8% effectiveness in diverse infections (62 cases including fever of undetermined origin, peritoneal abscess, osteitis, periarthritis, septic arthritis, staphylococcal enterocolitis, gastroenteritis, carriers of staphylococci.) **You can count on TAO.**

95.6% of 1,928 cases free of side effects—in the remaining 4.4%, reactions were chiefly mild gastrointestinal disturbances which seldom necessitated discontinuance of therapy.

*In 884 of 1,928 cases the causative organisms were mostly staphylococci. The majority of clinical isolates were found to be resistant to at least one of the commonly used antibiotics and many patients had failed to respond to previous therapy with one or more antibiotics. **TAO proved 93.4% effective in these 884 cases.**

Complete bibliography available on request.

DOSAGE: varies according to severity of infection. Usual adult dose—250 to 500 mg. q.i.d. Usual pediatric dose: 3-5 mg./lb. body weight every 6 hours.

NOTE: In some children, when TAO was administered at considerably higher than therapeutic levels for extended periods, transient-jaundice and other indications of liver dysfunction have been noted. A rapid and complete return to normal occurred when TAO was withdrawn.

SUPPLY: TAO CAPSULES—250 mg. and 125 mg., bottles of 60. TAO ORAL SUSPENSION—125 mg. per 5 cc. when reconstituted, palatable cherry flavor, 60 cc. bottles. TAO PEDIATRIC DROPS—100 mg. per cc. when reconstituted, flavorful; special calibrated dropper, 10 cc. bottles. INTRAMUSCULAR or INTRAVENOUS—10 cc. vials, as oleandomycin phosphate.

OTHER TAO FORMULATIONS ALSO AVAILABLE: TAO®-AC (Tao, analgesic, antihistaminic compound) capsules, bottles of 36. TAOMID® (Tao with Triple Sulfas)—tablets, bottles of 60. Oral Suspension—60 cc. bottles.

For nutritional support **VITERRA®** Vitamins and Minerals

Formulated from Pfizer's line of fine pharmaceutical products.

Rx PFIZER

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being™

contain
the
bacteria-prone
cold

Tain

(Triacetyloleandomycin, Triaminic® and Calurin®)



inner
protection
with...

safe antibiosis

Triacetyloleandomycin, equivalent to oleandomycin 125 mg. This is the URI antibiotic, clinically effective against certain antibiotic-resistant organisms.

fast decongestion

Triaminic®, 25 mg., three active components stop running noses. Relief starts in minutes, lasts for hours.

well-tolerated analgesia

Calurin®, calcium acetylsalicylate carbamide equivalent to aspirin 300 mg. This is the freely-soluble calcium aspirin that minimizes local irritation, chemical erosion, gastric damage. High, fast blood levels.

TAIN brings quick, symptomatic relief of the common cold (malaise, headache, muscular cramps, aches and pains) especially when susceptible organisms are likely to cause secondary infection. Usual adult dose is 2 Inlay-Tabs, q.i.d. In bottles of 50. ℞ only. Remember, to contain the bacteria-prone cold...TAIN.

SMITH-DORSEY · Lincoln, Nebraska
a division of The Wander Company



To the relief of musculoskeletal pain, new MEDAPRIN* adds restoration of function

Analgesics offer temporary relief of musculoskeletal pain, but they merely *mask* pain rather than getting at its *cause*. New Medaprin, in addition to bringing about prompt subjective improvement, promotes the *restoration of normal function* by suppressing the inflammation that *causes* the pain.

Medaprin, Upjohn's new analgesic-steroid combination, contains aspirin plus Medrol.** the corticosteroid with *the best therapeutic ratio in the steroid field.*† Instead of suffering recurrent discomfort because of the "wearing off" of analgesics, the patient on Medaprin experiences a smooth, *extended* relief and more normal mobility.

Indications: Medaprin is indicated in mild-to-moderate rheumatic and musculoskeletal conditions, including rheumatoid arthritis, deltoid bursitis, low back pain, neuralgia, synovitis, fibromyositis, osteoarthritis, low back sprain, traumatic wrist, sciatica, and "tennis elbow."

Dosage: The recommended dosage is 1 tablet q.i.d. The usual cautions and contraindications of corticotherapy should be observed.

Supplied: In bottles of 100 and 500.

Formula: Each Medaprin tablet contains

- 300 mg. acetylsalicylic acid, for prompt relief of pain
- 1 mg. Medrol, to suppress the causative inflammation
- 200 mg. calcium carbonate, as buffer

*TRADEMARK **TRADEMARK, REG. U. S. PAT. OFF.—METHYLPREDNISOLONE, UPJOHN
†RATIO OF DESIRED EFFECTS TO UNDESIRED EFFECTS

The Upjohn Company, Kalamazoo, Michigan

Upjohn



more and more physicians are prescribing this triple sulfa



TERFONYL

Squibb Triple Sulfas (Trisulfapyrimidines)

Clinical experience continues to prove that TERFONYL provides many special advantages fundamental to successful antibacterial therapy.

• specificity for a wide range of organisms • superinfection rarely encountered • soluble in urine through entire physiologic pH range • minimal disturbance of intestinal flora • excellent diffusion throughout tissues • readily crosses blood-brain barrier • sustained therapeutic blood levels • extremely low incidence of sensitization

SUPPLY: Tablets, 0.5 gm. • Suspension, raspberry flavored, 0.5 gm. per teaspoonful (5cc.).

SQUIBB *Squibb Quality—the Priceless Ingredient*

"TERFONYL"® IS A SQUIBB TRADEMARK



no irritating crystals[1] · uniform concentration in each drop[2]

STERILE OPHTHALMIC SOLUTION

NEO-HYDELTRASOL®

PREDNISOLONE 21-PHOSPHATE-NEOMYCIN SULFATE

2,000 TIMES MORE SOLUBLE THAN PREDNISOLONE OR HYDROCORTISONE

"The solution of prednisolone has the advantage over the suspension in that no crystalline residue is left in the patient's cul-de-sac or in his lashes The other advantage is that the patient does not have to shake the drops and is therefore sure of receiving a consistent dosage in each drop."[2]

1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

supplied: 0.5% Sterile Ophthalmic Solution NEO-HYDELTRASOL (with neomycin sulfate) and 0.5% Sterile Ophthalmic Solution HYDELTRASOL®. In 5 cc. and 2.5 cc dropper vials. Also available as 0.25% Ophthalmic Ointment NEO-HYDELTRASOL (with neomycin sulfate) and 0.25% Ophthalmic Ointment HYDELTRASOL. In 3.5 Gm. tubes.

HYDELTRASOL and NEO-HYDELTRASOL are trademarks of Merck & Co., Inc

MSD MERCK SHARP & DOHME Division of Merck & Co., Inc., Philadelphia 1, Pa.

THE ORIGINAL potassium phenethicillin

SYNCILLIN®

(phenoxyethyl penicillin potassium)

A dosage form to meet the individual requirements of patients of all ages in home, office, clinic, and hospital:

Syncillin Tablets – 250 mg. (400,000 units)...Syncillin Tablets – 125 mg. (200,000 units)
Syncillin for Oral Solution – 60 ml. bottles – when reconstituted, 125 mg. (200,000 units) per 5 ml.
Syncillin Pediatric Drops – 1.5 Gm. bottles. Calibrated dropper delivers 125 mg. (200,000 units)

Complete information on indications, dosage and precautions is included in the circular accompanying each package.

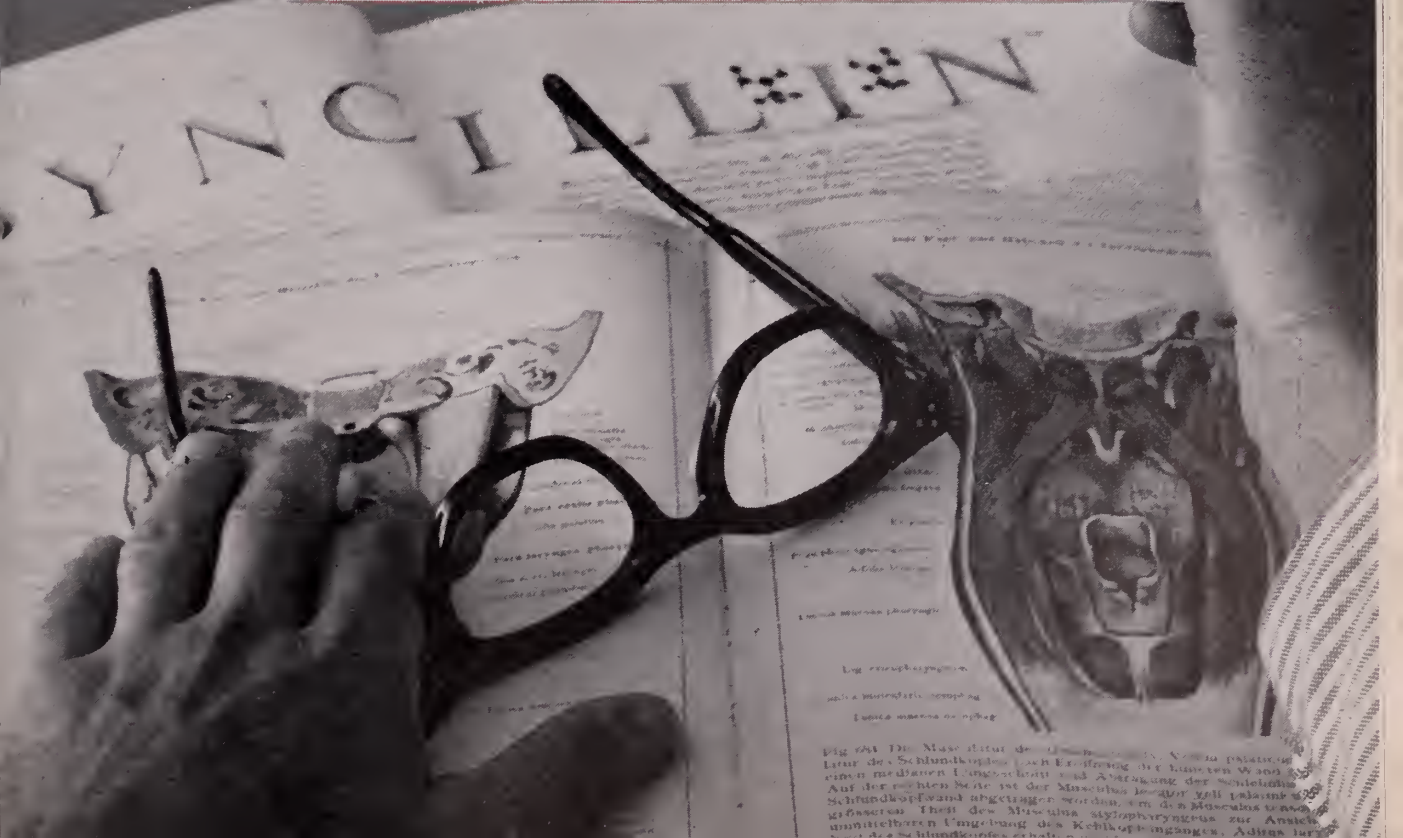
BRISTOL LABORATORIES, SYRACUSE, NEW YORK

ACUTE PHARYNGITIS

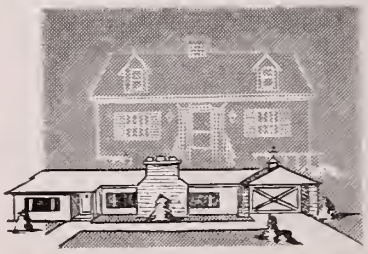
SYNCILLIN®
500 mg. t.i.d. - 5 days

W. M. 24-year-old-male. Admitted with sore throat which had progressed rapidly in severity for 24 hrs. Temp. 104.4. Pulse 110. Acute pharyngitis and enlarged, red, bulging tonsils covered with pus. Throat culture revealed beta hemolytic strep. Patient given 500 mg. SYNCILLIN t.i.d. Within 24 hrs., fever terminated by crisis with marked relief of local signs and symptoms. After 5 days, infection was cured.

Actual case summary from the files of Bristol Laboratories' Medical Department



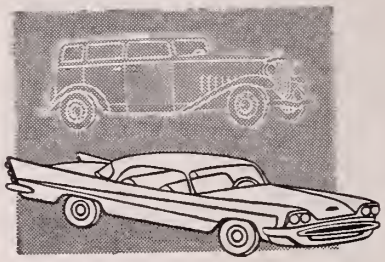
Today's security also demands Modern Design!



. . . broad comprehensive coverages

. . . with flexibility

. . . yet, at low costs



Modern Americans are "design" conscious. Styling is a must. Modern Americans also demand "top design" in their security programs—through flexible, broad coverage, insurance benefits. The Number One security need is disability income protection.

Are your insurance coverages modern in design, adequate to meet today's high cost of living?



Through your new official

OKLAHOMA STATE MEDICAL ASSOCIATION

DISABILITY INSURANCE PROGRAM

you have available coverages designed by OSMA members to meet todays needs.

If your program is not modern in design, contact your OSMA insurance representative and bring your insurance coverages up-to-date.

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NORTH AMERICAN COMPANY

For Life, Accident and Health Insurance

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A LOGICAL ADJUNCT TO THE WEIGHT-REDUCING REGIMEN

meprobamate **plus** d-amphetamine... reduces appetite...elevates mood...eases tensions of dieting...**without** overstimulation, insomnia or barbiturate hangover.

Dosage: One tablet one-half to one hour before each meal.

anorectic-ataractic

BAMADEX®

meprobamate 400 mg., with d-amphetamine sulfate 5 mg., Tablets

Lederle

Midwestern Adjustment Co.

FOR THE BEST COLLECTION SERVICE THAT MEETS YOUR SPECIFIC PROBLEMS

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Call or write to us for any further information.

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anorectic-ataractic ®

BAMADEX

meprobamate 400 mg., with d-amphetamine sulfate 5 mg., Tablets

FOR THERAPY
OF OVERWEIGHT PATIENTS

- d-amphetamine depresses appetite and elevates mood
- meprobamate eases tensions of dieting (yet without overstimulation, insomnia or barbiturate hangover).

Dosage: One tablet one-half to one hour before each meal.

A LOGICAL COMBINATION
IN
APPETITE CONTROL

Lederle

ST. PAUL FIRE and MARINE • ST. PAUL MERCURY • WESTERN LIFE •

The St. Paul–Western Insurance Companies

FOUNDED 1853

CHOICE OF THE OKLAHOMA STATE MEDICAL ASSOCIATION FOR PROFESSIONAL LIABILITY INSURANCE

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Oklahoma City, Okla.
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for your complete insurance needs . . .

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. . . MALNUTRITION OR
LEG CRAMPS DURING PREGNANCY?

OUTMODED AS GODEY'S FASHIONS!

℞ NEW

PRENALIN-O®

PRENATAL SUPPLEMENT

1. Oyster Shell Calcium - Phosphorus Free!
2. New Form of Iron!
3. Dry Filled Capsule - Sure, Quick Absorption!
4. Economical Once-A-Day Dosage!
5. Wider Range Nutritional Support!
6. Relieves Troublesome Leg Cramps!



EACH dry filled capsule (lavender and white) provides:

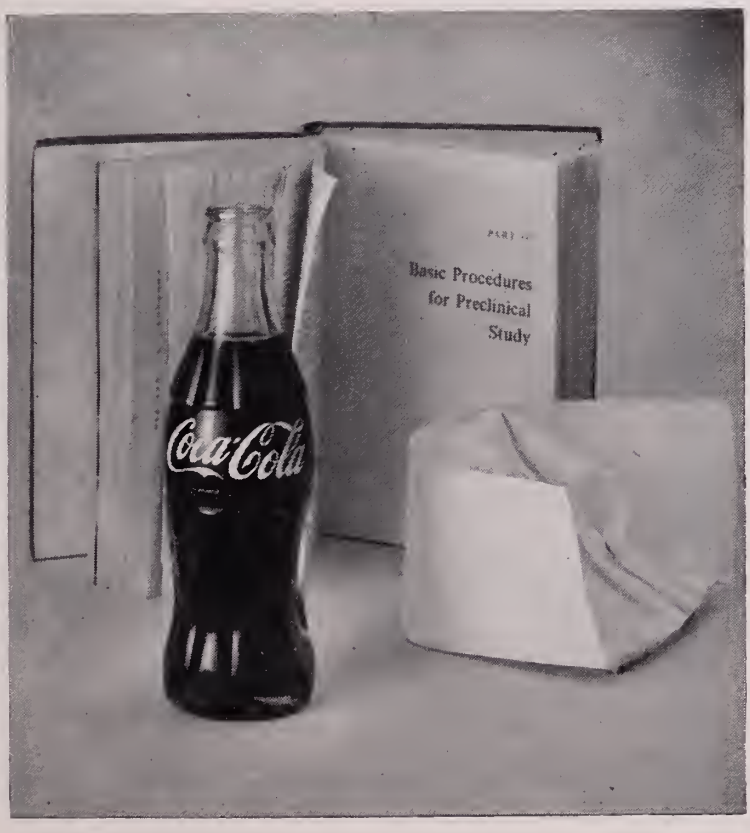
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Deep sea oyster shell (Calcium)	600 mg.	Folic Acid	0.25 mg.
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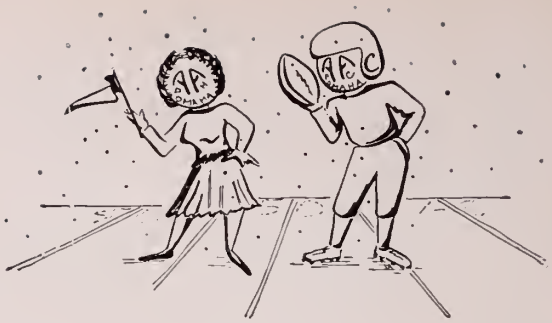
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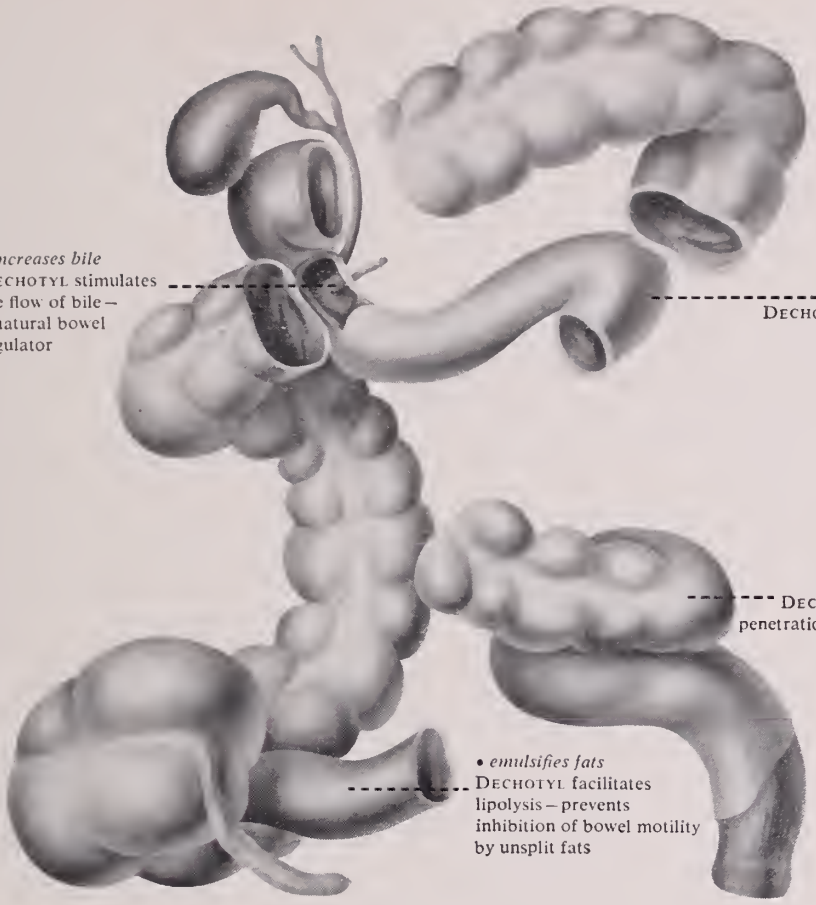
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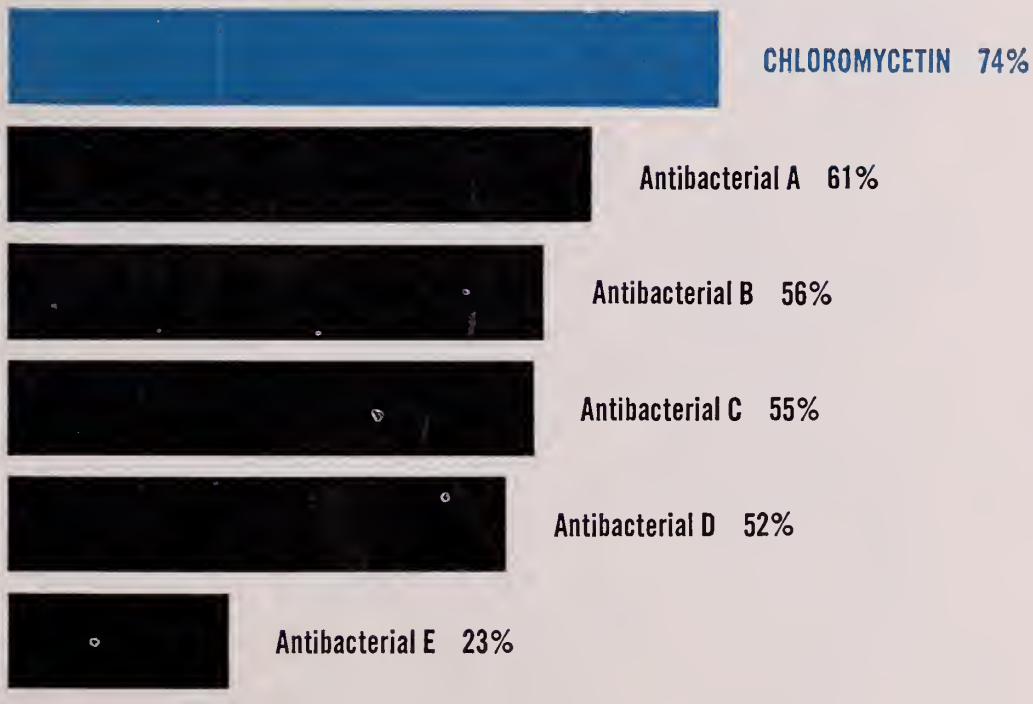
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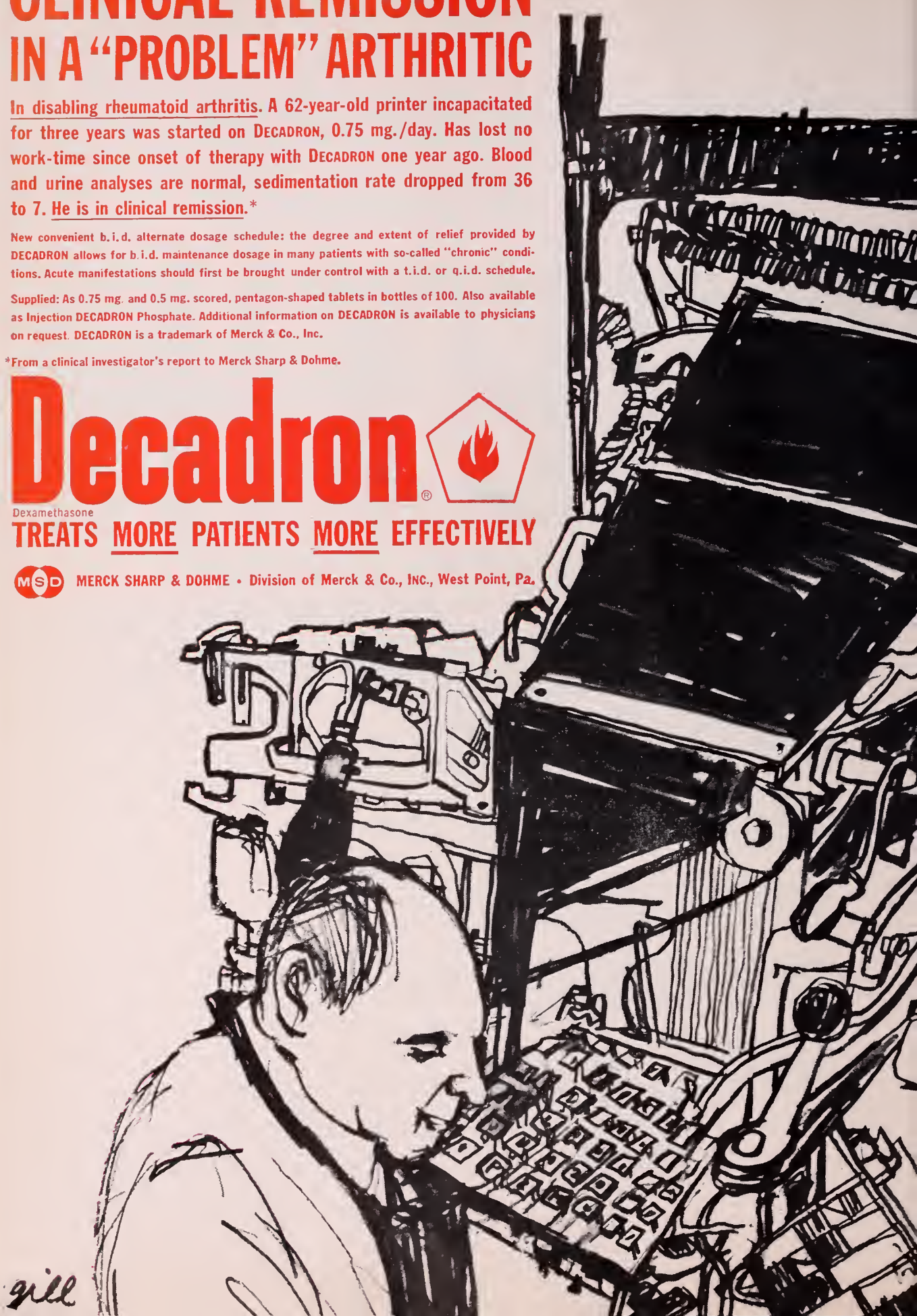
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92% effectiveness in skin and soft tissue infections (900 cases including pyoderma, impetigo, acne, infected skin disorders, wounds, incisions and burns, furunculosis, abscess, cellulitis, chronic ulcer, adenitis.) **You can count on TAO.**

87.1% effectiveness in genitourinary infections (349 cases including urethritis, cystitis, pyelitis, pyelonephritis, orchitis, pelvic inflammation, acute gonococcal urethritis, lymphogranuloma venereum.) **You can count on TAO.**

75.8% effectiveness in diverse infections (62 cases including fever of undetermined origin, peritoneal abscess, osteitis, periarthritis, septic arthritis, staphylococcal enterocolitis, gastroenteritis, carriers of staphylococci.) **You can count on TAO.**

95.6% of 1,928 cases free of side effects—in the remaining 4.4%, reactions were chiefly mild gastrointestinal disturbances which seldom necessitated discontinuance of therapy.

*In 884 of 1,928 cases the causative organisms were mostly staphylococci. The majority of clinical isolates were found to be resistant to at least one of the commonly used antibiotics and many patients had failed to respond to previous therapy with one or more antibiotics. **TAO proved 93.4% effective in these 884 cases.**

Complete bibliography available on request.

DOSAGE: varies according to severity of infection. Usual adult dose—250 to 500 mg. q.i.d. Usual pediatric dose: 3-5 mg./lb. body weight every 6 hours.

NOTE: In some children, when TAO was administered at considerably higher than therapeutic levels for extended periods, transient-jaundice and other indications of liver dysfunction have been noted. A rapid and complete return to normal occurred when TAO was withdrawn.

SUPPLY: TAO CAPSULES—250 mg. and 125 mg., bottles of 60. TAO ORAL SUSPENSION—125 mg. per 5 cc. when reconstituted, palatable cherry flavor, 60 cc. bottles. TAO PEDIATRIC DROPS—100 mg. per cc. when reconstituted, flavorful; special calibrated dropper, 10 cc. bottles. INTRAMUSCULAR or INTRAVENOUS—10 cc. vials, as oleandomycin phosphate.

OTHER TAO FORMULATIONS ALSO AVAILABLE: TAO®-AC (Tao, analgesic, antihistaminic compound) capsules, bottles of 36. TAOMID® (Tao with Triple Sulfas)—tablets, bottles of 60. Oral Suspension—60 cc. bottles.

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Trancoprin, a new analgesic, not only raises the pain perception threshold but, through its chlormezanone component, also relaxes skeletal muscle spasm[1-6] and quiets the psyche.[2,3-5,7]

The effectiveness of Trancoprin has been demonstrated clinically[8] in a number of patients with a wide variety of painful disorders ranging from headache, dysmenorrhea and lumbago to arthritis and sciatica. In a series of 862 patients,[8] Trancoprin brought excellent or good relief of pain to 88 per cent of the group. In another series,[9] Trancoprin was administered in an industrial dispensary to 61 patients with headache, bursitis, neuritis or arthritis. The excellent results obtained prompted the prediction that Trancoprin "... will prove a valuable and safe drug for the industrial physician."[9]

Exceptionally Safe

No serious side effects have been encountered with Trancoprin. Of 923 patients treated with Trancoprin, only 22 (2.4 per cent) experienced any side effects.[8,9] In every instance, these reactions, which included temporary gastric distress, weakness or sedation, were mild and easily reversed.

Indications

Trancoprin is recommended for more comprehensive control of the pain complex (pain → tension → spasm) in those disorders in which tension and spasm are complicating factors, such as: headaches, including tension headaches / premenstrual tension and dysmenorrhea / low back pain, sciatica, lumbago / musculoskeletal pain associated with strains or sprains, myositis, fibrositis, bursitis, trauma, disc syndrome and myalgia / arthritis (rheumatoid or hypertrophic) / torticollis / neuralgia.

Dosage

The usual adult dosage is 2 Trancoprin tablets three or four times daily. The dosage for children from 5 to 12 years of age is 1 tablet three or four times daily. Trancoprin is so well tolerated that it may be taken on an empty stomach for quickest effect. The relief of symptoms is apparent in from fifteen to thirty minutes after administration and may last up to six hours or longer.

How Supplied

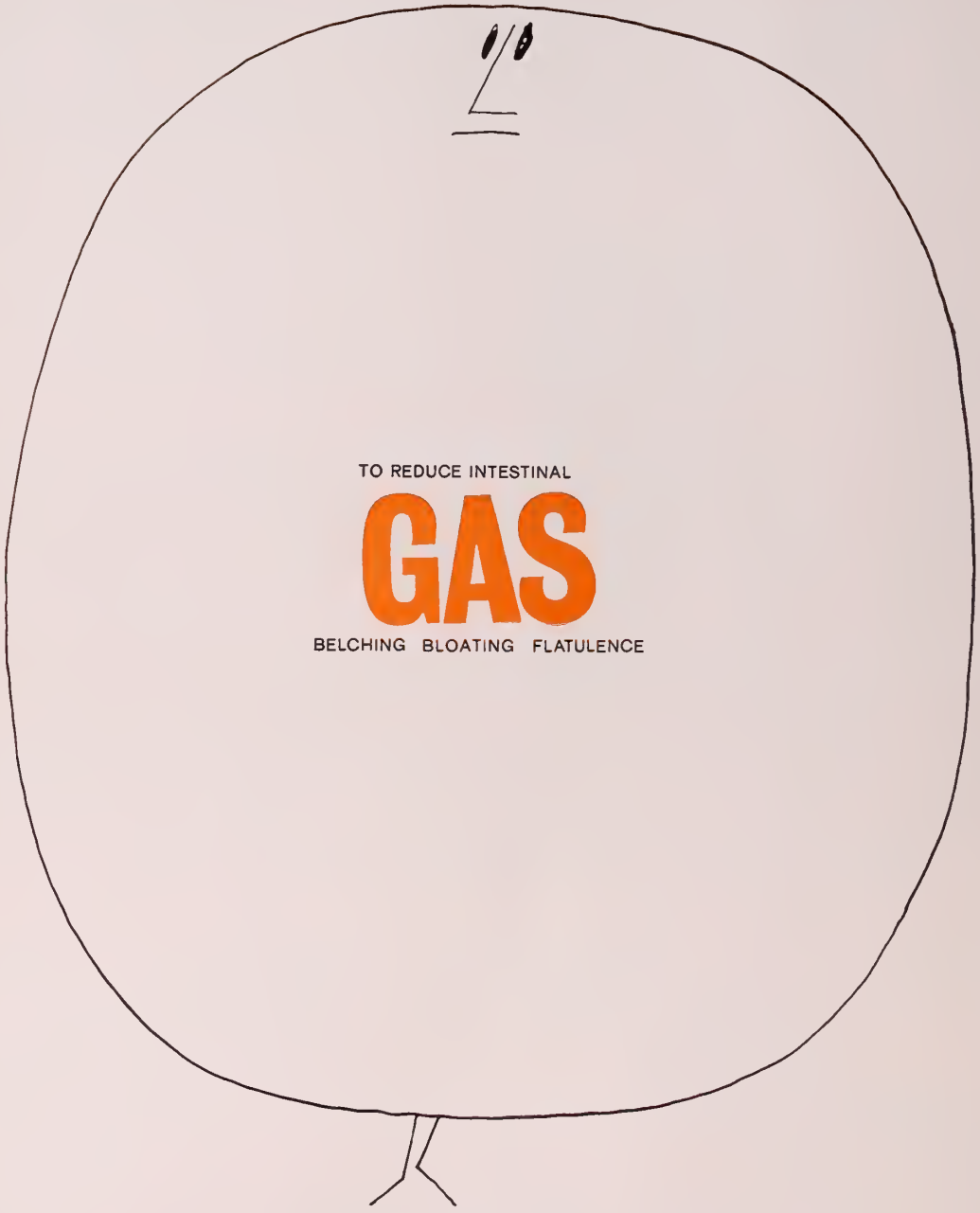
Each Trancoprin tablet contains 300 mg. (5 grains) of acetylsalicylic acid and 50 mg. of chlormezanone [Trancopal® brand]. Bottles of 100 and 1000.

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References: 1. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 2. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960. 5. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 6. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 7. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 8. Collective Study, Department of Medical Research, Winthrop Laboratories. 9. Hergesheimer, L. H.: An evaluation of a muscle relaxant (Trancopal) alone and with aspirin (Trancoprin) in an industrial medical practice, to be submitted.

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1. Stephens, V. C., *et al.:* J. Am. Pharm. A. (Scient. Ed.), *48*:620, 1959.
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Editorial

The Arden House Conference On Tuberculosis

The Arden House Conference on Tuberculosis was called jointly by the National Tuberculosis Association and the U. S. Public Health Service. Both organizations believed that an over-all appraisal of the tuberculosis program in this country was in order.

From various fields relating to this problem 18 specialists were convened with the hope that the meeting would provide new direction and instill new vigor into this country's control program. Sessions were held November 29 through December 2, 1959, at Arden House, the Harriman Campus of Columbia University, located some 48 miles north of New York City.

The recommendations of the Conference, published in February 1960,[1] have been widely discussed at state and national tuberculosis meetings. In general they have been favorably received. The Conference made one major recommendation and eleven lesser ones.

The major recommendation calls for a program for the widespread application of chemotherapy as a public health measure for the elimination of tuberculosis in the United States:

"The goal is to sterilize that important part of the reservoir of tubercle bacilli that presently exists throughout the country in persons currently suffering from active tuberculous disease, but are presently known or unknown to public health authorities, and in selected persons who previously have had active disease and were inadequately treated. The technique to be used is to mobilize all resources for a widespread application of the scientifically demonstrated and medically accepted procedures of adequate chemotherapy. These include the proper dosage of appropriate drugs or a combination of drugs given continuously over an adequate period of time—procedures that are known to destroy tubercle bacilli in the human body, render the patients' disease non-communicable to others, and minimize the possibility of reactivation.

"The unique aspect of this recommendation lies in its emphasis on such chemotherapy primarily as a public health tuberculosis control measure, as well as for the benefit of the individual patient; with all connotations of community mobilization and the control by public health authorities that this new concept implies. This recommendation obviously implies as well an adequate case detection program."

At the beginning of the Conference, it was agreed that our goal was clearly to be the elimination of tuberculosis. In the past, the aim has been a bit less lofty, viz., "to reduce tuberculosis to a minor health problem." There are presently areas in the United States where tuberculosis has been practically eliminated, so the goal is a realistic one that can be achieved in a reasonable period of time.

During the 1950's it was learned that the anti-tuberculosis drugs were truly effective. In fact 85 to 90% of the patients can be rendered non-infectious if properly treated with drugs. Now, during the 1960's the time seemed right for aggressive action to use this tool of chemotherapy to maximum advantage. The major responsibility in carrying out this program rests with the state and local health departments acting in cooperation with private physicians, and hospitals. This role of health departments' supervising treatment is in addition to the

1. National Tuberculosis Association Bulletin.

traditional one of case finding. The majority of such patients supervised have had their treatment initiated in a sanatorium.

In Oklahoma the type of supervision of out-patients under TB drug treatment is as follows: 65% public clinics, 25% private physicians and 10% VA. This ratio reflects the economic level of patients now developing the disease. Fortunately anti-tuberculosis drugs are cheap, and the needed drugs can be provided all clinic patients either at cost, or without charge.

The greatest area of expansion in chemotherapy in Oklahoma since the conference has been among patients with inactive tuberculosis, who have previously had active disease and did not receive drugs or were inadequately treated. The Arden House Conference gave the green light to the use of secondary prophylaxis in such situations. This is a logical expansion of the chemotherapy program. It is a type of approach that will appreciably reduce the reactivation rate among those patients who stabilized their disease prior to the chemotherapy era. During the past six months some 200 such patients attending public clinics have been placed on secondary TB drug prophylaxis.

The conference took recognition of the importance and potential significance of the current field studies of the U. S. Public Health Service in isoniazid prophylaxis. They urged that adequate appropriations be continued for the support of these investigations which may provide a significant shortcut to the elimination of tuberculosis.

In the first study, isoniazid was given to children with primary tuberculosis in an effort to find out if it would prevent complications. There were 2,700 children involved, of whom one-half received isoniazid and the other half received placebos for one year. There were 27 complications in the first year among children receiving the placebo, two among those receiving the drug. This group is still under observation with the program now in its fifth year. (The University Medical Center is a participant.) Thus far this study gives support to the present policy of giving isoniazid to all positive reactors under three years of age.

The second part of the chemoprophylaxis study involves some 60,000 persons under observation in 79 communities and a number of institutions in the United States. In these communities, when the case is discovered, all contacts are tuberculin tested and have a roentgenogram of the chest. Those with active disease, though treated, are eliminated from the study. The rest, both positives and negatives, are given isoniazid or a placebo. Oklahoma County is participating in this study. Incidentally another investigation in TB chemoprophylaxis is being conducted in Ottawa County, Oklahoma. It is a similar "double blind" study but limited to persons with silicosis.

It is too soon to draw any conclusions from this second study but it seems likely that isoniazid will prevent progressive infection while given. How long the prophylactic effect will last after the drug has been discontinued, which is the crux of the research, remains to be seen. Preliminary reports will be available in the spring of 1961. At this point, we should guard against over-enthusiasm in the use of chemoprophylaxis until more knowledge is gained. This is particularly true in childhood where some physicians are now giving the drug to practically all positive tuberculin reactors.

In Oklahoma, anti-tuberculosis drugs are available to those needing them. Chest clinic facilities are also provided. To implement the major recommendation of the Arden House Conference means using the resources we now have to better advantage. All active cases should be carefully supervised and treated continuously for about two years. In addition greater stress should be placed on chemoprophylaxis in certain groups. This particularly should include secondary prophylaxis of selected persons with inactive disease who previously had active disease and were inadequately treated.

Richard M. Burke, M.D.
Conferee, Arden House Conference

What Next?

As we go to press, the campaign is going into its final week; the Department of Public Welfare is preparing to implement the new amendment to the Social Security Law which provides matching funds for assistance in things medical to those past retirement who need it and who are not on the assistance rolls; and organized medicine is expressing thanks to Senator Kerr for his successful efforts to defeat amendments which would have made such a program a social security retirement benefit.

We lost a battle for control of government sponsored medical care programs in the summer and fall of 1959 when we failed to come up with a program of our own. Both political parties are pressing for help for retired people in their medical needs. How it will be done in the future will depend on the political and economic philosophy of those in power at the time.

Senator Kerr believes that if such a program is to be on the basis of need then the cost should be borne by the total national income both at a state and national level, that is with both state and federal governments participating. Organized medicine supports the concept of help for only those who need help. Mr. Kerr also thinks that the approach to the problem through a social security tax would leave out many old people who need help. His bill does not make medical benefits a matter of right but a matter of need.

Trouble over the presently approved program is apt to come when it appears to be too weighty an item in the national budget, which may be soon because of the promises in the platform of both parties; or if too many states do not give their old people a chance to take full advantage of Federal participation in their medical care. In the first instance it can be removed from the budget by financing the program through an additional social security tax. In the second instance, the degree of state participation cannot be controlled at the national level. Federal control means total financing at a national level. Both point toward an additional social security tax.

With Senator Kerr's help, we won the battle of 1960. Is it possible for us yet to win the war? Perhaps it is, with strong leadership and the sacrifice of some of the traditional concepts of medical economics. It will also be necessary to abandon the idea that good doctor-patient relationship is an adequate substitute for a correct diagnosis. This will take much work, much study and time. Surely it is worth it.—*B.H.N.*

American Medical Association Clinical Meeting

The American Medical Association looks forward to holding its 14th Clinical Meeting in Washington, D. C., November 28-December 1 because the physicians who attend this meeting in the nation's capital can anticipate one of the finest scientific programs of our day.

I want to welcome all physicians to this meeting and to urge all members of the American Medical Association to take part in the scientific activities, to visit the scientific and industrial exhibits, and to attend the sessions of our House of Delegates.

Considerable time has been spent to develop the finest scientific program possible, which will stress the theme, "New Developments in Old Diseases and Old Developments in New Diseases."

A feature of particular interest to the practicing physician will be the presentation of both sides of a question where differences exist concerning the management of a disease or medical condition. I personally look forward to some interesting debate on many subjects where opinions differ.

Some of the topics to be covered by leading physicians and scientists from across the nation include gynecology, hematology, obstetrics, coronary disease, pathologic nodules, psychiatry, artificial kidneys, orthopedic surgery, opthalmology, diarrhea, antibiotics and tranquilizers.

The scientific sessions, to be held in the National Guard Armory, will be so arranged so that three sections will take place simultaneously in both morning and afternoon.

One section will be devoted to presentation of formal papers, another to panel discussions, and the third will be a symposium. Of course, all sections will be followed by question-and-answer periods.

The months of prolonged, detailed planning for these meetings have been directed to one goal: to give you, the doctor, the latest, up-to-the-minute scientific information. Our clinical meetings are designed as a sort of post-graduate course in medicine, to provide you with all the major scientific advances under one roof.

A scientific highlight of this meeting will be a series of six one-hour television presentations from Georgetown University Hospital. These shows will feature dermatology, pediatrics, emergency treatment of major injuries, and newer methods in surgical treatment of peptic ulcer, orthopedics and pathology.

Three scientific breakfasts will be held on both Tuesday and Wednesday at the Statler Hotel, highlighting the themes, "To Do or Not To Do," and "Problems of Management" in particular diseases or types of cases.

During the meeting, the House of Delegates, A.M.A.'s policy-making body, will meet at the Sheraton Park Hotel. I cordially invite every member of A.M.A. to attend the sessions of the House. Although only delegates are permitted to speak from the floor, any A.M.A. member may express himself on issues in the reference committee meetings, scheduled to meet all day Tuesday, November 29th. This is one of the rights of A.M.A. membership, and I hope any of you who wish, will take advantage of it.

The participation by doctors from all over America is one of our guarantees that A.M.A. will continue to serve its members best. There is no member who cannot be heard from, or who will be refused an audience. Not only is this a right, but I regard it as a duty of physicians to speak up on matters they think of interest or concern to the A.M.A. and American medicine. Only in this way can we remain alert to changing opinions, new developments and whispering crises.

Another highlight of this meeting will be the election of the General Practitioner of the year. This is in line with the purpose of the clinical meeting—to provide the family doctor with the newest developments in medicine. Of course, the scientific meeting is also designed to inform specialists and researchers as well as general practitioners.

But whether you are a general practitioner or a specialist, a practicing physician or a research scientist, you cannot afford to miss this outstanding clinical meeting. On behalf of the American Medical Association, I cordially invite and urge you to attend. The success of our meetings is measured solely by how helpful and informative they are for you, the doctor.

E. VINCENT ASKEY, M.D.,
President, American Medical Association

"Consultations on Problems in Practice"

A New Concept of Postgraduate Education

Co-sponsored by the Office of Postgraduate Education, University of Oklahoma Medical Center, and the Postgraduate Committee of the Oklahoma State Medical Association, the unique program will feature informal roundtable discussions on common problems facing the medical practitioner. Story on page 790.

DECEMBER 15, 16, 17

University of Oklahoma Medical Center

Twenty-eight consecutive cures of postoperative vesicovaginal fistula using modified Latzko technique. Removal of retention catheter after twenty-four hours.

Treatment of Postoperative Vesicovaginal Fistula

GERALD ROGERS, M.D., F.A.C.S.*

Gerald Rogers, M.D., a 1930 graduate of the University of Oklahoma School of Medicine, has been certified by the American Board of Obstetrics and Gynecology. In addition to his private practice in Oklahoma City, he is Clinical Professor of Gynecology at the University of Oklahoma School of Medicine.

Doctor Rogers is a member of the American College of Surgeons, the International College of Surgeons, the American College of Obstetrics and Gynecology and the Central Association of Obstetrics and Gynecology.

THERE ARE few conditions in surgical therapy which will result in more unending gratitude of a patient for restoration to a life of comfort and usefulness to her family than the closure of a vesicovaginal fistula.

This patient, who otherwise would be a healthy and useful individual, becomes a recluse because of her physical handicap and resulting mental attitude. Her introspective solitary existence, precluding exercise and fresh air, results in a state of poor physical and mental health.

The increase in popularity of total hysterectomy has resulted in a great increase in postoperative vesicovaginal fistula. Recent contributions by Miller[1] and Holden[2] have noted this fact. While they occur much more frequently in the hands of the occasional total hysterectomist, there are few experienced operators who have not encountered this disturbing postoperative complication, even in the case which was not of the radical nature for malignant disease. Unquestionably, the majority result from direct trauma. A considerable number result from necrosis from impaired circulation, produced by ligation of numerous vessels in the bladder wall, or by perforation of the bladder wall with a needle in suture of the vaginal cuff.

Attempts to close postoperative vesicovaginal fistulae have always had too high a percentage of failure, as evidenced by the large number of patients in this series who have had previous attempts at repair. The more common causes of failure were:

1. Too early repair.
2. Failure to adequately investigate patient.
3. Inadequate exposure.

*Department of Gynecology—University of Oklahoma School of Medicine, and Department of Obstetrics and Gynecology—St. Anthony's Hospital, Oklahoma City, Oklahoma..

4. Failure to adequately excise scar tissue —mobilizing fascia and membranes.
5. Closure of layers with tension.
6. Presence of infection.

Pathologic Anatomy of Vesicovaginal Fistulae

Postoperative vesicovaginal fistulae differ in pathology and location from other fistulae. It is always in the vault of the vagina and anterior to the transverse scar of the vault, which forms the posterior margin of its opening. Just behind this scar is the posterior vaginal wall and the cul-de-sac of Douglas. In the early development of this fistula, there is always cellulitis and interference with blood supply, which results in a certain amount of fixation and disappearance of fascial planes. The recurring fistula which follows an attempted repair is often due to this simple point.

The urologic surgeon, the general surgeon, and the gynecologist each claims the repair of urinary fistula within his province. It is not the purpose of this paper to enter into medical polemics. However, if it is the intention of a surgeon other than a urologist to repair such a fistula, he must either have the help of a urologist or be competent to adequately complete a urologic investigation himself.

Prophylaxis

Postoperative vesicovaginal fistula can usually be prevented by observing certain maneuvers, most of which apply to both vaginal and abdominal hysterectomy:

1. The surgeon should hold the structure to be removed with one hand, maintaining traction, facilitating the dissection of cleavage planes.
2. Each step of operation done under direct vision.
3. Cleavage planes should be dissected inside para cervical fascial cuff.
4. Avoidance of use of large curved or angle clamps on vaginal vault.
5. Vagina should be entered posteriorly.
6. Vaginal cuff trimmed close to cervix, except in malignancy.
7. *Routine* total hysterectomy should not be used—rather "selective hysterectomy." Total abdominal hysterectomy, as well as vaginal hysterectomy, has well-defined indication. We agree with DeMoraes[3] that the indications for subtotal or supravaginal hysterectomy should be limited to the contraindications of the total variety. The subtotal should proximate less than 2%.

Treatment

The cure of postoperative vesicovaginal fistula is surgical repair performed at the optimal time under favorable conditions. Optimal time means the period of elapsed time from the onset until the tissue reaction has entirely subsided. The minimum is usually three to four months, during which time minute fistulae may close spontaneously. Each fistula will present its own problems, and the success of the prospective surgical repair will depend upon:

1. Careful preoperative study and preparation.
2. Choice of operative procedure.
3. Meticulous technique, with attention to small details.
4. Vigilant postoperative care.

Types of Operation

There are three accepted methods of surgical approach—vaginal, transvesical, and transperitoneal. At least ninety-five per cent of postoperative vesicovaginal fistulae can be successfully closed by the vaginal route. Latzko,[4] in 1913, reported his first case in which he used a modified partial colpocliesis. Later, in 1942, he reported 31 cured cases in which he used the procedure.

F. C. Falk,[5] in 1951, reported nine cures by the modified Latzko procedure with a well-illustrated technique, re-emphasizing the peculiar adaptability of the operation to postoperative vesicovaginal vault fistulae.

It advances a new principle in using the denuded posterior vaginal wall as a flap to cover the opening in the bladder. The raw surface of the posterior vaginal wall is soon covered by a thin layer of bladder epithe-

lium. It does not require the vesical edges of the fistula to be denuded, nor does it require the bladder musculature to be sutured to itself; thus there is never any tension on the suture lines. It is safe, is relatively easy to perform, associated with little shock or hemorrhage, and the danger of peritonitis is slight.

The success of the operation depends upon the facts emphasized by Latzko, Holden, and Falk:

1. The fistula always occurs in the apex of the vault.
2. The normal apposition of the anterior and posterior vaginal wall, which lessens tension on their sutured denuded surfaces.
3. Absence of tension on the sutured area with bladder distention.

Preoperative Diagnosis and Care

General supportive care of the patient with use of appropriate chemotherapeutic and antibiotic agents if any infection is evident. Urine cultures and sensitivity tests may be valuable adjuncts to routine sediment stains. Careful inspection of the bladder by cystoscopic examination to determine exact location of fistula with respect to trigone, urethral sphincter, and ureteral meatus. To determine whether the fistula is single or multiple, to be certain that it is not ureteral as well, an excretory urogram is often indicated. An associated hydronephrosis should be excluded. The use of the Kelly air cystoscope may facilitate these efforts.

The surgeon should never be coerced into attempting the closure until the optimum time when all cellulitis and tissue reaction has subsided. Too early a repair accounts for the majority of failures.

Technique of Repair

1. *Position of patient*—Lithotomy position facilitates exposure, and anatomical relationships are common to the gynecologic surgeon.

2. *Illumination*—Adequate spotlight or headlight is essential.

3. *Retractors*—Ordinary weighted speculum with small Deaver retractors on sides.

4. *Perineotomy*—In narrow deep vaginas may be necessary. Large Schuchardt incision is bloody and seldom necessary.

5. *Mobilization of vaginal vault*—May be accomplished by inserting Foley catheter. Small fistulous opening may be dilated to

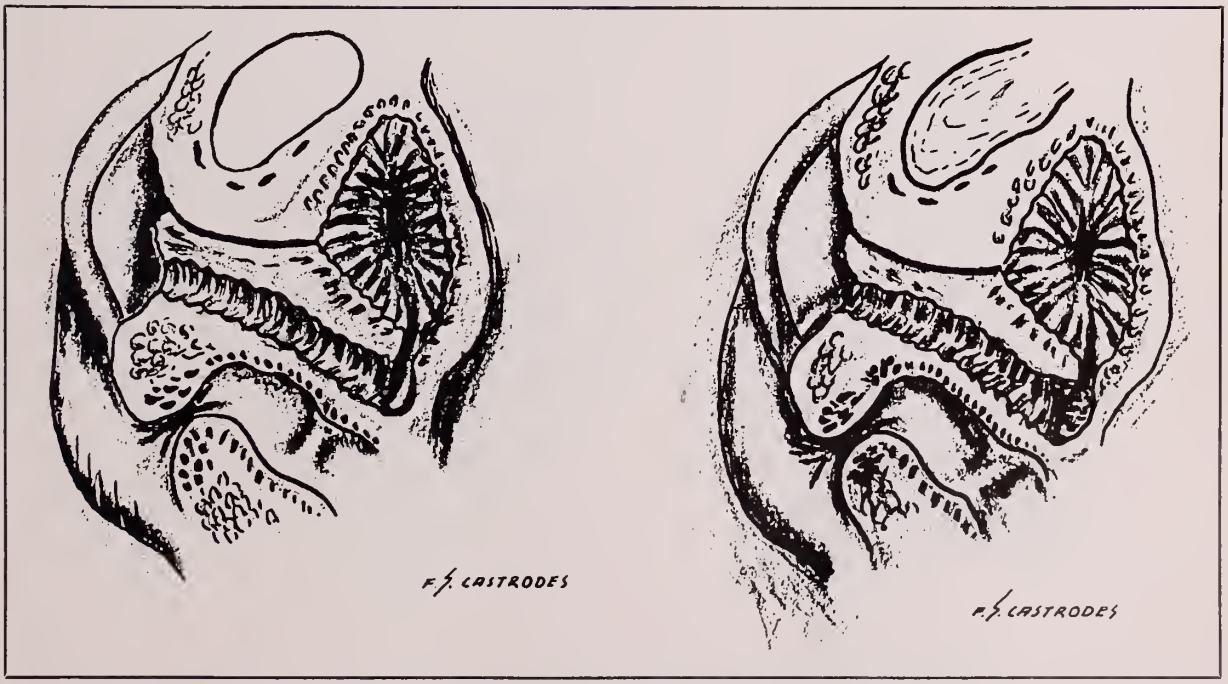


Figure 1. Illustrating location of fistula and area denuded by high colpocleisis.

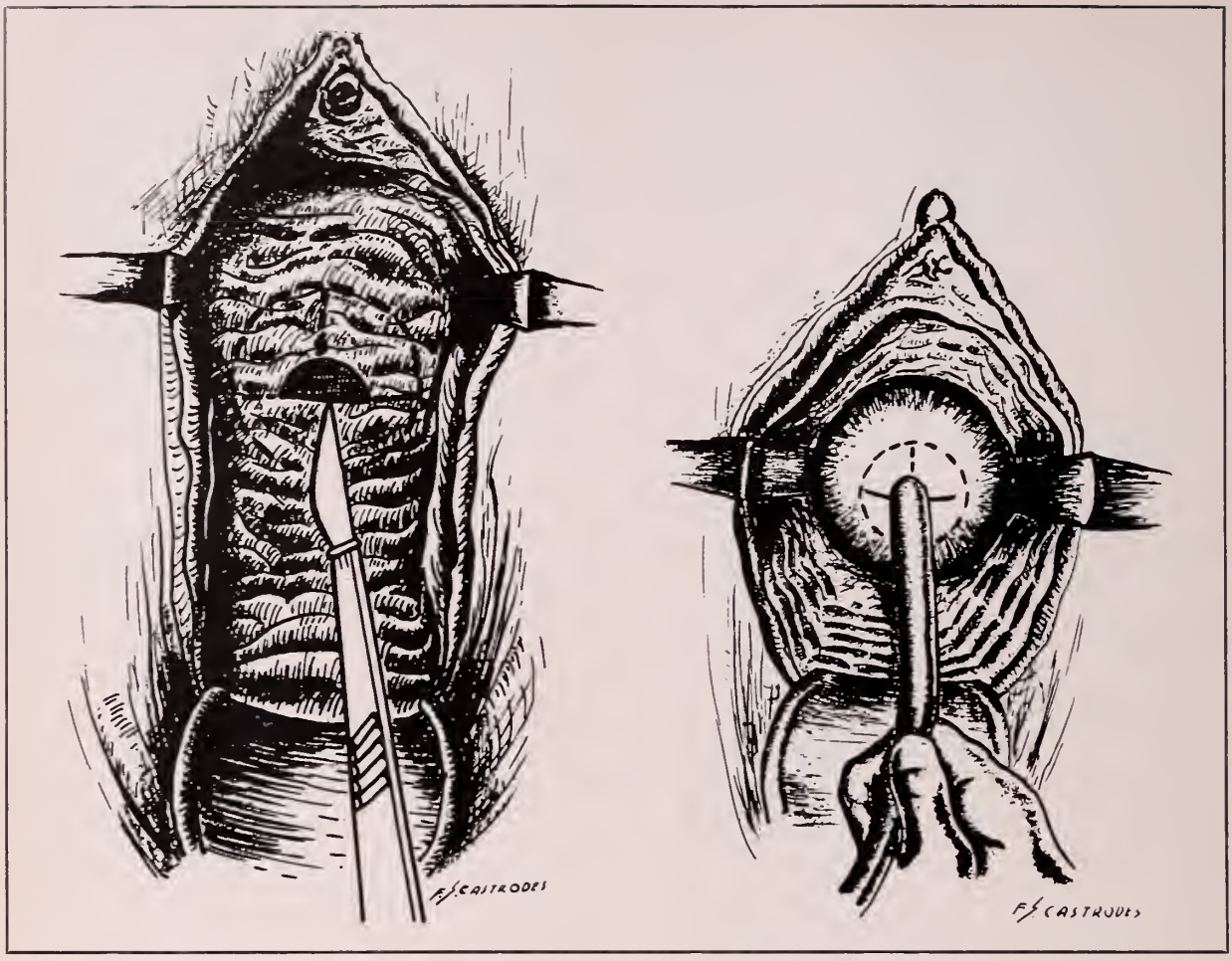


Figure 2. Illustrating area to be denuded, and ease with which area can be pulled down with catheter.

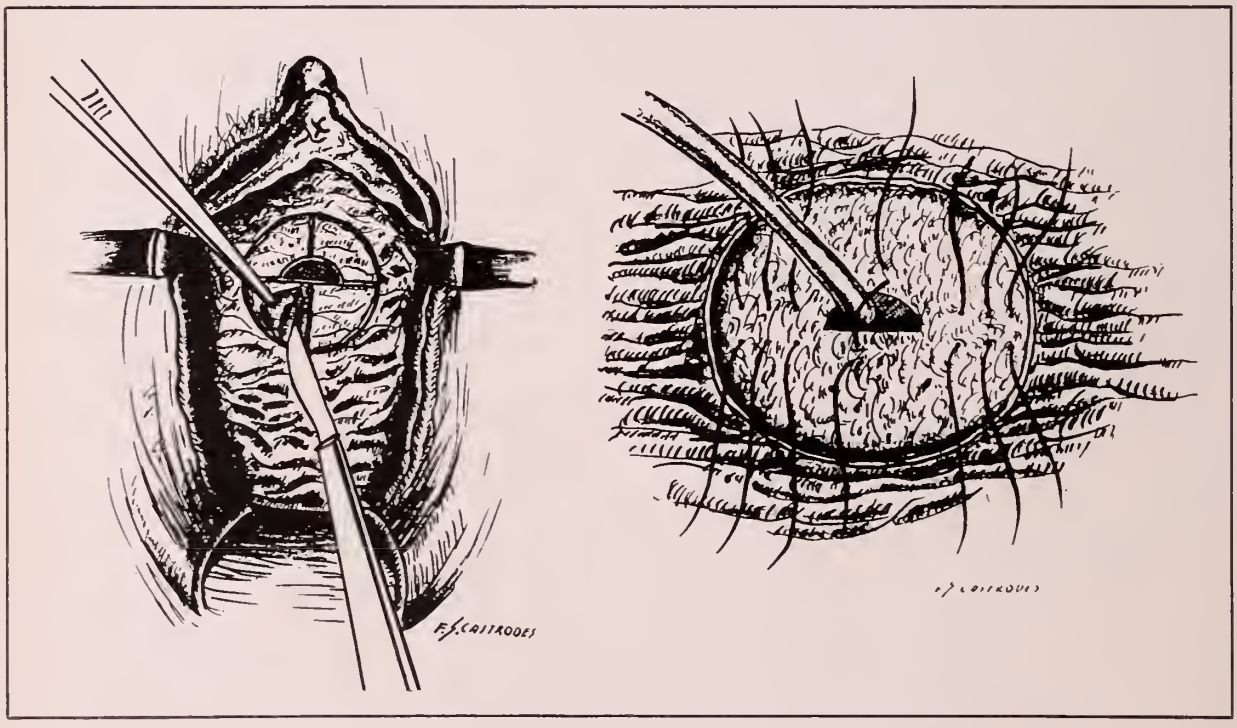


Figure 3. Illustrating denudation and first layer of sutures.

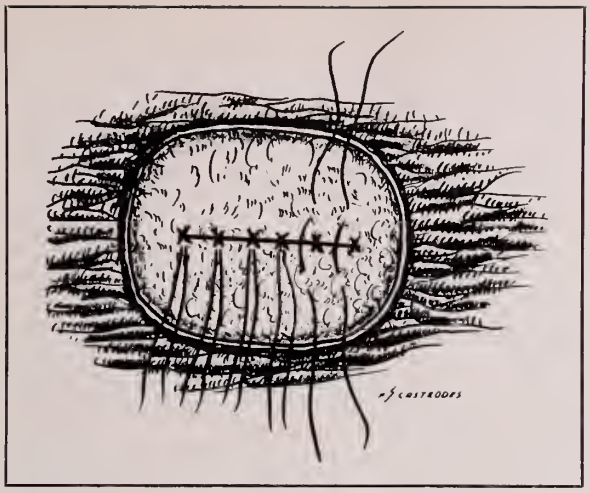


Figure 4. Illustrating placement of second layer of sutures.

admit catheter. Affords better exposure than traction sutures and makes firm surface facilitating denudation about fistula. A minute fistula that is not visible by vaginal examination may be found readily by inserting a ureteral catheter from vesical side.

6. *Denudation*—Area to be denuded is outlined, 1.5 - 2 cm. beyond margins of fistula. Falk's method of removing membrane by quadrants is used. All scar tissue is removed and the edges of vaginal membrane undermined 0.25 cm. beyond margins.

7. *Suturing of wound*—Chromic 00 catgut with atraumatic needles used throughout repair. All sutures placed vertically and are interrupted. The first layer of sutures are placed with catheter still in place. Sutures tied and held as tractors until second layer is placed. Hemostasis prior to suturing must be meticulous. Electro-coagulation was used successfully in several of our cases, avoiding necessity of suture ligature.

Postoperative Care

The postoperative care of the patient is equally as important as the meticulous adherence to technical efforts in the closure. We think that early removal of the retention catheter is a distinct advantage since it cannot keep the wound dry and is an irritant to the healing wound in the bladder. The suture line is stronger the first few days than at any other time, and the earlier the patient regains a vesical capacity, the less tension will be placed on the healing wound, hence:

1. Catheter is removed after 24 hours.

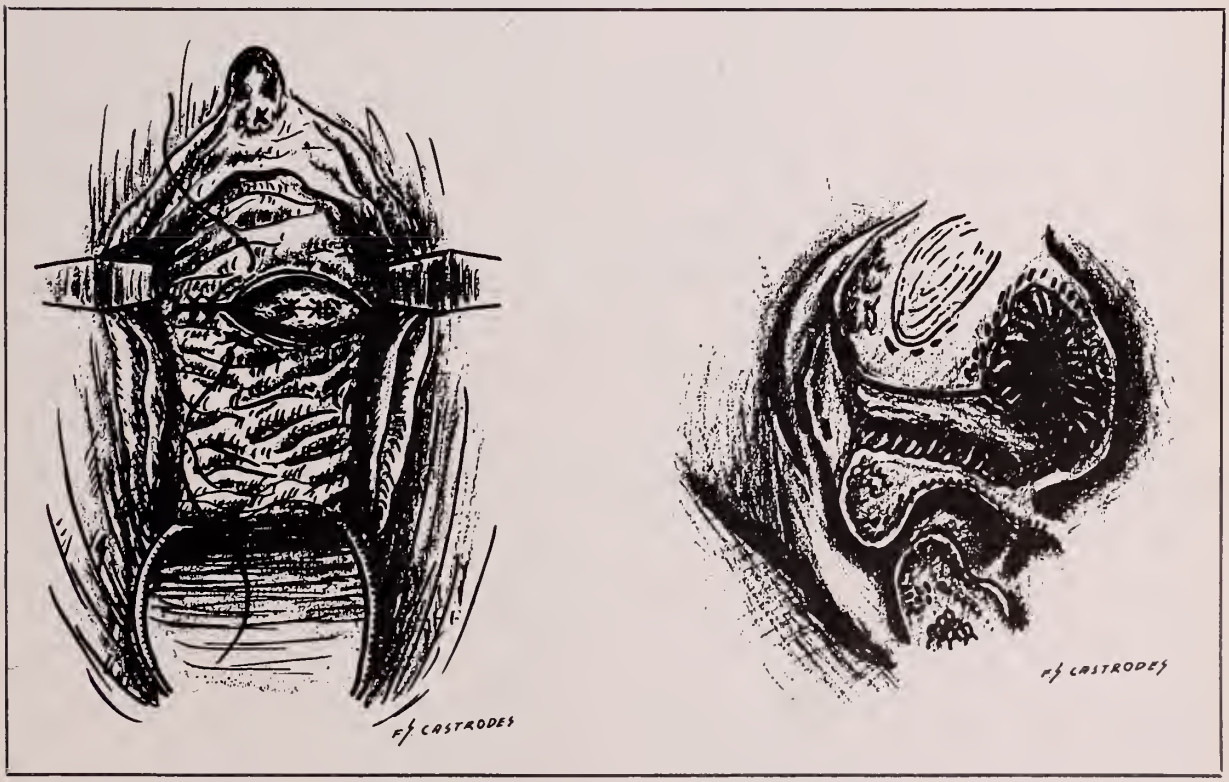


Figure 5. Final layer of suture and diagram of completed high colpocleisis.

Case Number Hospital Age	Date	Original Pathology	Operation	Onset of Fistula	Location	Previous attempts at Closure	Result
1 #264661 St. Anthony 33 years	2 Sept. '52	Myomata uteri	Abd. panhyst. 6 Feb. '52	4 days P. O.	0.75 cm. vag. vault above trigone	Attempted repair 12th P. O. day	Cured
2 #266904 St. Anthony 47 years	4 Sept. '52	Myomata uteri	Abd. panhyst. 1 March '52	3 days P. O.	1 cm. vag. vault above trigone	Attempted repair 26 April '52	Cured
3 #266975 St. Anthony 44 years	6 Sept. '52	"Frozen pelvis," Diabetes mellitus	Abd. panhyst. 14 Mar. '52	3 wks. P. O.	1.5 cm. vag. vault above trigone	Attempted repair 9 May '52	Cured
4 #267740 St. Anthony 19 years	4 Oct. '52	Passed hydatid mole. Persistent bleeding	Panhystero-salpingo-oophorectomy 2 April '52	4 days P. O.	Vag. vault 2 cm.	Attempted repair 6 June '52	Cured
5 W 2276 Wesley H. 66 years	2 Feb. '53	Post-menopausal bleeding	Abd. panhyst.	4th P. O. day	0.25 cm. rt. vag. fornix near meatus	3 previous attempts at closure	Cured
6 #284247 St. Anthony	10 June '55	Myomata uteri	Total abdominal hysterectomy February 1953	4 days P. O.	0.5 cm. high in left vaginal fornix	Attempted closure 18th postoperative day. Constant drainage since.	Cured
7 #310167 St. Anthony 63 years	1 July '55	Fistula following delivery 1919 (36 yrs.)	Vaginal delivery	7 days P. O.	0.5 cm. 3 cm. above cervix, 1 cm. left of midline	Attempted closure 1919	Cured
8 #297737 St. Anthony 33 years	8 Sept. '55	Chronic salpingitis	Total abdominal hysterectomy, bilateral salpingo-oophorectomy	4 days P. O.	0.75 cm. Left vaginal fornix	Attempted closure at 6 weeks with failure	Cured
9 #302529 St. Anthony 75 years	10 Jan. '56	Cancer	Panhysterectomy for carcinoma of corpus uteri 1933	Immediately following surgery	Minute- Midline of vault. Constant drainage	Attempted closure by fulgeration on two occasions with failure	Cured
10 University Hospital T.S.	14 Jan. '56	Myoma uteri, chronic salpingitis	Panhysterectomy	8 days P. O.	1 cm. Left fornix, extensive scarring	None	Cured
11 #304403 St. Anthony 48 years	16 Feb. '56	Fibroids	Panhysterectomy for pelvic tumor 28 May 1955	Immediately	.25 cm. with canulized tract 1 cm. long	Attempted closure 6 months later	Cured
12 St. Anthony 33 years	4 Apr. '56	Chronic cervicitis of stump	Vaginal trachelectomy	7 days P. O.	0.5 cm. opening midline of vault	None	Cured
13 #310595 St. Anthony 48 years	13 July '56	Pelvic tumor	Panhysterectomy February 1956	4 days P. O.	2 small fistulae with median bridge. Left vaginal fornix	Attempted suture or cautery at two weeks	Cured

Case Number Hospital Age	Date	Original Pathology	Operation	Onset of Fistula	Location	Previous attempts at Closure	Result
14 J. D. St. Anthony 48 years	12 July '56	Myomata	Total abd. hyst.		2 3-mm. fistulae just anterior to scar and separated by dense scar tissue.	0	Cured
15 E.G. #318075 St. Anthony 33 years	14 Jan. '57	Dysmenorrhea	Total hysterectomy 10 May 1956		0.75 cm. fistula just anterior to transverse scar - midline	Attempted repair on 20th post-operative day. Failure	Cured
16 W. S. #324246 St. Anthony 43 years	13 June '57		Total hysterectomy 20 November 1956	6 days P. O.	0.5 cm. fistula in left angle of vaginal cuff	0	Cured
17 N. D. #309522 St. Anthony Age 77	15 Apr. '58 Surgery deferred 19 mos., awaiting progress from Ca Rx and recovery from stroke.	Ca of cervical stump	Radium therapy	6 weeks later	3 cm. fistula in apex of vaginal vault. Marked atresia.	0	Cured (obliteration of upper ⅓ vagina)
18 G. W. #342692 St. Anthony Age 37	9 Oct. '58	Myoma	Total hysterectomy Repair incisional hernia.	2 weeks P. O.	0.25 cm. midline anterior to transverse scar	0	Cured
19 Age 32	April 1946	Myomata	Patient Operated on by James Boyle, M.D. Total abd. hyst. October 1945		2 mm. fistula just lateral to midline and posterior to trigone	0	Cured
20 Age 44	June 1946	Myomata	Patient Operated on by James Boyle, M.D. Total abd. hyst. October 1945		2-3 mm. fistula just lateral to midline and above scar	0	Cured
21 Age 54	Jan. 1947		Patient Operated on by James Boyle, M.D. Total abd. hyst. 1943		Much scarring. 3 mm. fistula in midline.	Attempted closure by urologist in 1943 by suprapubic approach. Patient kept recumbent 6 weeks. Failure	Cured
22 Age 26	Jan. 1947 Fistula closed and partial colpocleisis		Patient Operated on by James Boyle, M.D. Forceps delivery April 1957, 9# baby, mother 240#. Although fistula existed, a T.A.H. performed for "uterine fixation and old P.I.D."		Vagina very deep and wide. Fistula 7 cm. Unable to identify either ureteral orifice.	0	Cured Bladder appeared normal and ureteral orifice visualized
23 Age 32			Caesarean section		2 cm. fistula located 3 cm. posterior to trigone, just anterior to cervix	0	Cure Closed by 3 layers imbricating suturia

Case Number Hospital Age	Date	Original Pathology	Operation	Onset of Fistula	Location	Previous attempts at Closure	Result
24		Patient Operated on by John F. Kuhn, M.D.					
#322471 St. Anthony Age 48	1 May '57 Closure		Tot. hyst., bilat. sal. oophorectomy, Aug. 1956, Belflower, Calif.	7 days P. O.	3 mm. fistula left vaginal fornix, anterior to scar.	0	Cure
25		Patient Operated on by William Bond, M.D.					
#348685 St. Anthony Age 34	20 Jan. '59 Partial trachelec. Closure of fistula		Total hysterectomy	5 days P. O.	Piece of cervix retained. Small 3 mm. fistula just ant. to cervix, below trigone	0	Cure
26		Patient Operated on by William Bond, M.D.					
Univ. Hosp.	June 1959 Routine closure plus oblit. of upper ¼ of vagina.	Ca of cervical stump with extention to bladder wall	Radium and deep x-ray Mar. 1957		4 cm. fistula at base of bladder. Involved portion of trigone. Ureteral orifices intact. Extensive scarring.	0 Pending evidence of cure of Ca	Cure
27							
Mercy Hosp.	2 May '59 Routine closure	Chronic pelvic infec.	Total abd. hyst. with bilat. salp. oophorectomy	2 days P. O.	1 cm. fistula left fornix with extensive scarring	Attempted closure on 9th P. O. day —failure	Cure
28	Patient Operated on by J. B. Ballina, Sr., M.D., Resident, University Hospital						
Univ. Hosp.	May 1959 Routine closure		1952-Hyst., left tube and ovary. 1954-Right tube and ovary. Jan. 1958-Lysis of adhesions. May 1958-Excision of endometrioma.	Immediately after May '58 surgery	2 cm. fistula in left vaginal vault. Extensive scarring	1. 1 week after onset. Failure 2. 1 week later. Failure. 3. Jan. 1959 Transvesical closure with Moskowitz obliteration of cul-de-sac. Recurrence with removal of catheter 12th day.	Cure

2. Patient is ambulated and encouraged to void.

3. Catheterize every two hours with glass catheter if unable to void.

4. Catheterize for residual urine, if able to void, until less than 60 cc on four occasions.

5. Appropriate urinary antiseptic as determined by preoperative sensitivity tests.

Summary

1. Pathological anatomy of postoperative vesicovaginal fistula is described.

2. Method of closure, consisting of partial high colpocleisis, so ably described by Latzko, Holden, and Falk, has been re-emphasized as the simplest most practical method of closure.

3. Adequate preoperative study, optimum time of surgery, and the abandonment of prolonged retention catheterization.

4. Twenty-eight consecutive cases are presented in which a cure has been effected by the modified Latzko procedure. Twenty cases were operated by the author and eight cases by other physicians using this technique and postoperative care.

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1111 North Lee, Oklahoma City, Oklahoma

A tumor of extraordinary size producing little difficulty.

Neurilemmoma of Peripheral Nerve

Report of A Case

FRANK L. FLACK, M.D.

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He is a Fellow of the American College of Surgeons, a member of the Southern Medical Association and the Tulsa Surgical Society.

IT IS REMARKABLE, even surprising, how large a tumor involving a peripheral nerve may become and cause absolutely no symptoms of any kind, except the presence of the tumor mass itself. This case of a neurilemmoma of the sciatic nerve is interesting because of its size and lack of associated symptoms.

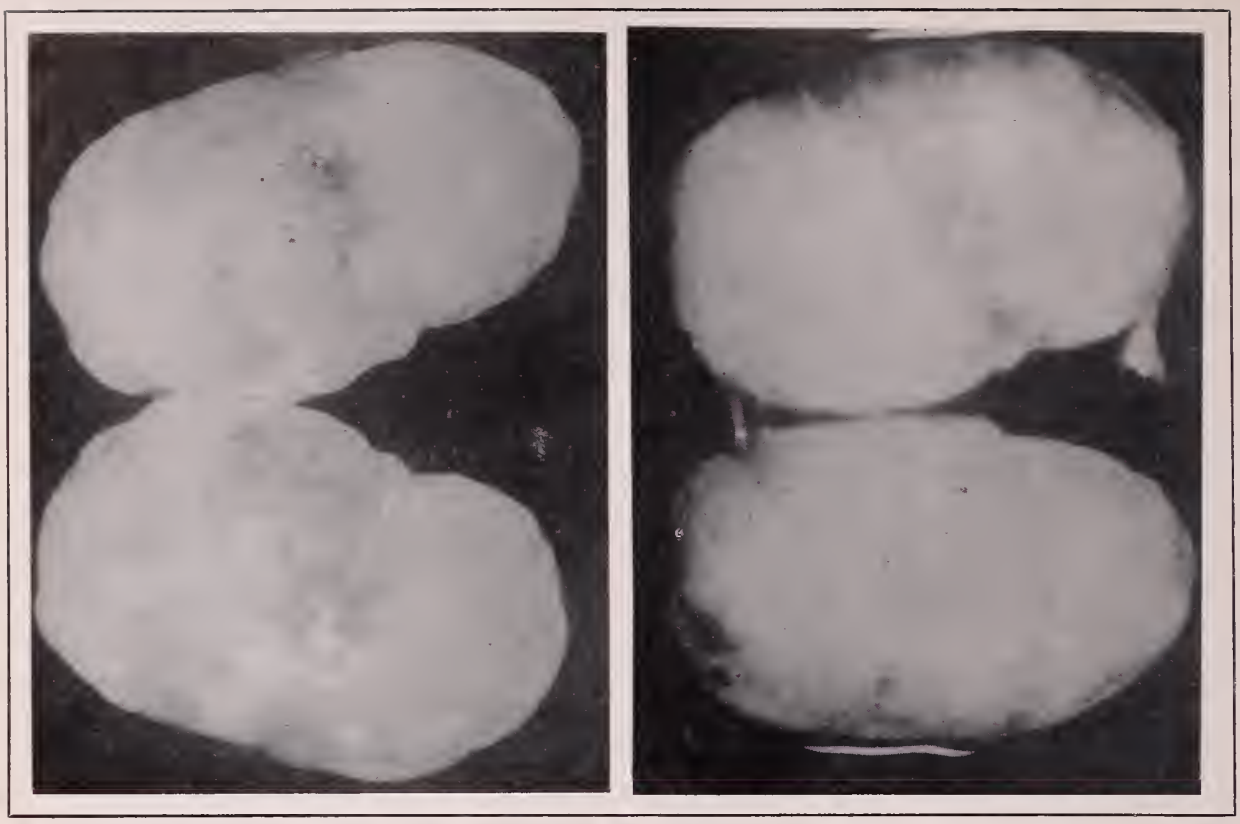
A 22 year old male, N. T., was referred to me by W. N. Coots, M.D., because of a tumor on the back of his thigh. He stated that about six months previously he had suddenly noticed a lump on the back of his right thigh, just above the knee joint. He stated that it was as large when he first noticed it as it was on the date of the examination, July 2, 1955. In his opinion it had not increased in size since the first time he noticed it six months ago. He thought it to be a sprained muscle or charley-horse, and saw no occasion to consult a physician. In June he was examined by a physician at Fort Benning, Georgia upon entering a summer camp, and was advised to consult his home physician without delay. The only symptom he admitted was moderate pain when he struck this tumor against a hard object.

Examination showed a large ovoid mass in the mid-line of the posterior right thigh, just above the popliteal space. This mass was about 15 cm. in diameter. It was movable in all directions, except for some evident attachment, just posterior to the femur, but it was not attached to the femur. In consistency it was dense elastic. The skin over this tumor was freely movable; there were no soft areas or points of fluctuation. No bruit could be heard over the swelling, no distended veins were seen and it was not hot.

There were some lymph nodes palpable in the groin, but they were small, hard and were not tender. He had no sensory change in this extremity; there were no changes in the skin; the peripheral vessels pulsated normally; and there was no restriction or limitation of any muscle or joint. The symptoms consisted only of a tumor on the back of the right thigh.

In St. John's Hospital in Tulsa, Oklahoma under spinal anesthesia an incision was made over the mass and it was found to originate from the sciatic nerve, just before this nerve divides into the internal and external popliteals. It was a solid tumor, dense elastic, and attached only to the sciatic nerve. It came out of the nerve. The fibres of the nerve fanned out over this mass and were spread out in a beautiful and orderly fashion, as if they had been skillfully arranged. Without great difficulty this tumor was shelled out and the incision closed without drainage.

Doctor Emil Palik, the pathologist, later described the tumor as follows: "The specimen consists of an ovoid, yellowish-pink tumor, measuring 12 x 8 x 6.5 cm., and weighs 330 gms., which on section presents a mottled moist glistening, yellowish-pink cut surface. An additional portion of the specimen consists of a grayish-pink membranous piece



Gross Specimen

of tissue, representing a capsule measuring 10 x 8 x 0.2 cm. Microscopic Examination: The specimen consists of a well-encapsulated tumor composed of strands of spindle cells arranged in parallel fashion, in some areas having oval and spindle-shaped hyperchromatic nuclei, with small acidophilic, sometimes fibullary cytoplasms. The cells are arranged in a loosely knit stroma. No bizarre mitoses are present. Diagnosis: Neurilemmoma."

Arthur Purdy Stout, M.D., whose experience is greatest in this class of tumors, says, "There are only two of these tumors in *our* collection which were buried with the sciatic nerve in the fashion you describe; one was 3.5 x 4 cm., the other was 6 x 8 cm. Your tumor was much larger than either of our two."[1] In the Atlas Tumor Pathology, Section II, Fascicle 6, nineteen names are given to this tumor[2] "When found peripherally," Stout says,[3] ibid, "They rarely attain a size greater than 6 cm." R. Hernandez, M.D., thinks these tumors contain elements from both Henle's sheath and neurolemma cells (cells of Schwann).[4]

On this date, April 6, 1956, this man shows no sensory changes after careful testing. He has free and complete use of his leg, except for the muscles which are innervated by the deep peroneal branch of the external popliteal nerve, involvement of which has caused a slight foot drop. This foot drop is not complete; he walks without difficulty or disability and his incomplete foot drop shows evidence of improvement. His occasional twinges of pain are encouraging.

These tumors are benign and no reference has been found of any developing into a malignant Schwannoma and when shelled out they do not recur. Such a neurilemmoma on a peripheral nerve is so benign and so unlikely to recur that the proper treatment is to shell it out and thereby the nerve fibres may be saved and normal function of the extremity remains.

A subsequent examination of this patient shows the physical findings to be the same as those reported in April, 1956.

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Medicine can help football coaches promote the emotional development of young men. Likewise, coaches can help medicine by sharing certain types of information.

Some Psychiatric Considerations in Coaching Football

CHESTER M. PIERCE, M.D.

Since graduating from Harvard Medical School in 1952, Chester M. Pierce, M.D., has been certified by the American Board of Psychiatry and Neurology. Doctor Pierce is now Assistant Professor of the Department of Psychiatry at the University of Oklahoma School of Medicine.

Doctor Pierce is a member of the American Psychiatric Association, the American Psychosomatic Society, Sigma Xi and an associate member of the American College of Physicians.

Introduction

EVERY sports-minded citizen in the United States knows that the Oklahoma high schools produce, year in and year out, some of the finest footballers in the nation. This is a tribute to you—and a very great tribute. Therefore, it is with much hesitation that I come before you to present any facet of football coaching, since you have proved yourselves as truly great professionals. I'm mindful, therefore, that what I tell you will probably be things you have known for many years.

My problem is complicated by two other considerations. In the first place, subject matter such as "The Football Coach as a Preventive Psychiatrist" has been well covered by Doctor Louis J. West.[1] Secondly, I want very badly to be able to tell you something you may find useful in coaching young athletes, since I, like many others, acknowledge in gratitude the debt I owe to football and particularly to the fine men who coached me from elementary grades through college.

In a very scholarly book entitled, "Individualism Reconsidered," it is written that if one wants to understand the American civilization, he should study the playing fields at South Bend on some Autumn Saturday afternoon.[2] Today we'll inspect the main contributors to such a Saturday afternoon, namely the players and their coaches.

To accomplish this inspection we'll consider first something about adolescent psychology. Next we'll try to understand why some adolescents would choose to play football. Finally, we'll touch on selected subjects whereby emotional manipulations may be applied by the coach not only during the season but also during the off season.

A main point that a physician can make is that if you as coaches recorded some of

Presented to the Oklahoma Coaches Association, August 10, 1960, Biltmore Hotel, Oklahoma City, Oklahoma.

your experiences in a more specific manner, psychiatrists would know a great deal more about many subjects ranging from predicting success in combat to how to handle teenage hoodlums. So what I would ask you to do as a part of the increasingly scientific evolution of all sports, is to record, record, record. Then compare your observations with others. Then use these data to predict what would follow which coaching maneuver. Probably most of you here know the heights and weights of your players, their speed in a hundred yard dash, perhaps even their grip strength or the number of pushups the lad can do. What I'm suggesting here is that to be a "complete" coach in the scientific day in which we live, it will be to your interest to know not only these physical attributes, but also emotional attributes. Thus you need to record and know such information as how many girl friends does this boy have, why didn't he get along with the English teacher, how does his mother treat him, why does he want to play football, etc., etc., etc.

Once you know such data and have observed and tried to use it predictively, I submit to you that within a few seasons you may have a more objective basis for things you do by intuition. Thus you'll be in a better position to control bottlenecks and speed up the development of your players since you'll know which boys to tease, which scrimmage event calls for an insult to a boy before his peers, which boy needs to be the coaches' pet and you'll know how to get a good player worked into a clique whose existence may have dated by years this player's arival in your school.

One of the persons in your community who probably will be very glad to help you learn to know how to keep records and how to find out things of value in helping a boy grow up is the local doctor. The doctor is trained to do these things and generally, by disposition, he is keenly interested in the problems of youth. So, if you ask your doctor to help you, perhaps these psychological considerations I'm about to mention will not appear so awesome.

Adolescent Psychology

You all know that adolescence is an extremely turbulent phase of life. It is characterized by the indecision of wishing to remain a child versus wishing to be an adult. Since the old role of being a child is familiar and secure, it is difficult to accept a new, unexplored role of accepting mature responsibility. During these transition years in which the boy is trying to become a man, he needs guidance to assure him he can become an acceptable, respectable man who does not need to rely completely on the decisions of others. Also, as you know it is an age of the blossoming awareness of one's body and to what purposes one may put it. And it is an age in which peers can be particularly devastating if one suffers social or physical stigma such as shabby clothes or insufficient money for a date or small stature or lack of comely appearance. Plagued by all these conflicts and yet pressured relentlessly both to remain a child (you must be in from a party by such a time) and to grow up (you must behave like a sober, responsible adult while at the party) the teenager may rebel against constituted authority.

Motivations for Playing Football

One of the best and readily available ways to eliminate adolescent doubts is to go out for a football team. In this way one can solve simultaneously core conflicts at many levels, including conflicts of dependency, sexuality, hostility and status.

The boy who plays left end for his high school is showing his independence. Ultimately there can be no one else out there flanking the line, telling him what to do, how to do it. It is an independent (indeed as Colonel Blaik has made explicit it can be "lonely") existence. Yet, one is not really independent—as indeed he never can be in any normal life situation. For on his team there are others. Thus the left end like all others can feel that he belongs to a group and yet he has the advantage of being independent. What other group can provide this balance so well? Certainly not the family unit from which he is indecisively trying to extricate himself. At home he may, for instance, belong, but he can't feel as independent and on his own as he does as he awaits the charge of an opposing tackle. Thus the footballer chooses football to prove his in-

dependency while having his dependency gratified by being a team member.

Perhaps even more salutary for a boy is to be able to prove his sexuality. The teenager has doubts, fears, worries about his masculinity—his worth as a man. Can he, he wonders, measure up to the demands of adult manhood? Compared to others, "do I have enough of what it takes?" While being the one in a two on one drill the boy can prove to himself how well he compares to others. And he can see what reserves of strength, agility, assertiveness he has which he has never before realized.

For other boys football is chosen and loved because it is a socially acceptable manner to express hostility. True your linebacker may be proving his ability to function independently and he may be demonstrating that he is indeed a man. Yet it may be most important for him to be able to knock heads in order to give vent to wrath pent up by social necessity. Of this social necessity, you, as coach should know how much is contributed to by a restrictive mother, how much added by a nagging teacher, how much aggravated by a controlling girl friend. Of course, you must estimate how much hostility going into the vicious use of hands by your linebacker is hostility displaced from you onto the enemy lineman who pulled out to complete his assignment on your mean linebacker.

Finally, as a motive to play football, is the traditionally important one in which our culture confers a special status on the footballer. The prestige motive is probably more consciously recognized by you, the player and the fans. But as you recognize it you should try to see why it is important for this particular boy to get prestige. In this way you may learn how to manipulate the prestige motive. For instance one youth may be playing, prestige wise, to impress the coeds in the school. Another youth, though not oblivious to this possibility, may be playing to show the townspeople that even though his old man was an alcoholic bum, he, the player, is someone to whom deference is owed.

Naturally, all these motives are admixed and are present in all the boys you coach. If you are able to sort out which motive is ascendant or paramount at a given time, you may be able to elect to suppress it or to develop it further. For example, you may want to suppress ideas of strength and masculinity in the player whom we could dub "Ferdinand the Bull." You've all seen many boys like this—big, strong, fast, courageous. Yet they won't mobilize their masculinity to measure up to their potential. You might find such a player is afraid he would hurt someone if he really used his power. Your maneuver then, would be to reassure him about the use of this power. Yet this should be dampened in comparison with making him more motivated to become independent, or more conscious of status privileges. Similarly you may find that you have a potential all-American if you emphasize one area of motivation. It is well known that people will cover up true feelings by developing the opposite traits. Technically, this is called reaction formation. The classroom example is the pious church deacon whose duty impels him to visit burlesque shows in order to censor them. In your school you may find a nice, gentle, placid guard. If you're successful in mobilizing him to negate his reaction formation (i.e. that he is gentle and placid to cover up his seething, unconscious rage), then you may have the pleasant situation of what the journalists write about when they say so and so is the nicest guy in the school, until the kickoff whistle! It is your job to emphasize and call up to the lad, that the football field is the one best place in his world where he doesn't have to be gentle and nice.

Theoretical Psychology in Football

So much for motivations for playing football. At this point you may well wonder how important theory and application of psychology has been in your coaching. Every man here can recall with vivid emotional accompaniment, football experiences which occurred many years ago. This shows how deeply ingrained these events can become. Who does not feel uneasy as he recalls how 100,000 eyes saw him miss the vital tackle in an open field? No one forgets the humiliation before his peers, as the coaches re-run over and over, in slow motion, a play in which an opponent 20 pounds lighter mouse trapped him. But there is also exquisite joy

in playing football. One of the most happy places I have ever seen was the locker room of Ohio State a few years ago when they had defeated Iowa for a trip to the Rose Bowl.

Furthermore, if you would ask, such as I have done, a series of coaches what they like to see most in their players, nearly all the responses would be psychologically oriented. During the course of an exploratory investigation done with the help of the University of Wisconsin, I asked coaches the above mentioned question. Here are some typical replies. "I like a mean S.O.B. . . . I like a kid who really goes to work if blood is drawn . . . give me a cool, calculating quarterback . . . I want my halfbacks to just love to carry that ball . . . my fullbacks won't let one man bring them down . . . nowadays I don't want to look at a kid unless first of all he's smart . . . it takes a long time to teach a tackle that he can *will* himself across the line faster than his opponent."

Applied Psychology in Football

All of you here have applied psychological strategems in your coaching. There would be maneuvers such as initiation rituals (the veteran team members giving a slight hazing to the newcomers). Nearly all cultures have some sort of initiation ritual for the teen ager as he becomes a man. One important reason of these rituals is to impart the secrets of the tribe. Young players, struggling toward manhood, will thrill to the secrets of the tribe, which you impart daily in your role as a wizard. In this case you impart the finer points of football play. These secrets from the wizard are accepted with enthusiasm if the dispenser is a person whom the recipients respect, admire and trust. But how do boys get to place these qualities onto their coaches?

In order to do effective psychotherapy, it is necessary for there to be a relationship between the doctor and patient which abounds with mutual respect, confidence and trust. The doctor-patient relationship and the coach-player relationships would be similar in this regard. Studies with teenagers have shown that the therapeautic relationship can be attained if a therapist intrudes himself onto a subject and his family. The therapist elects to exert controls on the subject in an atmosphere which is permissible and flexible yet sufficiently stern. The therapist devotes much of his attention to the routine, daily needs and comforts of the subject. Mostly, the relationship develops, optionally, if the therapist continues it in a sustained manner.[3] In essence, the therapist promotes mutual respect, trust and confidence if he brings an aggressive friendliness to the youth and sustains it whether or not the youth is having specific troubles. This aggressive friendliness includes visits to the family.

I would suggest that a highschool coach could do the same thing in a deliberate plan. He would have to guard against over-friendliness. He would have to be certain that the boy saw him as a coach—but as a coach who was interested in him and not just nosey. In the plan of aggressive friendliness, the coach would call his boys in, either alone or in small groups, during the off season, to "punch the bag." Naturally, such talks would include general talk of football and "secrets" about schedules or procedures or famous players or advances in the science of the game. Yet the talks could, if done in a natural way, lead to a discussion of the boys' extrafootball life. In this way the coach could show interest and gain information about a variety of important data such as dating, grades, home problems. The coach in his role as preventive psychiatrist would use these sessions mainly to let the boy talk. When the coach did talk, it would be about "secrets" or to modify the youth's motivation for football. Example: To augment a boy's need to be lionized or decrease another boy's need not to express hostility. Always (unlike the psychiatrist) the coach could encourage higher aspiration levels whether it be playing a game or deciding on a career. The encouragement of aspirations also would have to be guarded since you must take care not to let the boy feel that he will disappoint you if he doesn't meet lofty expectations. Yet, generally, all teenagers could be encouraged to higher rather than to customary aspirations. Such talks, of duration compatible with your schedule, should be informal and repeated at least several times between seasons. And, as I suggested to you,

the value of these talks would accrue to you if you took a few notes after the boy left and then spent a few minutes thinking over what you now know about the boy and his background and his view toward life. By the fall you might have entirely different concepts about how you'll manage each player.

There would be many problems we could speak about. I'd welcome your empirical observations about a variety of individual and group phenomena. Such observations, as I've noted, would help us know more about clinical phychiatry. For instance, what has been your experience in regard to the "exhibitionist" (the player who plays well only in front of crowds) versus the inhibited exhibitionist (the player who is a tiger at practice but a lamb in the game)? What factors enter into the selection by the team of a team scapegoat? Why do you feel some boys are early bloomers and others are late bloomers? Of the early bloomers, why do some fade? Have you noticed a difference between a player whose mother urges him to play football, compared to a boy whose mother is apparently neutral or even negative about his playing football? How do you predict when your team is over confident? How is a boy affected when his father comes to argue with you? Does it seem helpful to a boy to have a giving, cooperative father who hovers closely about practices, never misses a game, etc? What are the processes by which a team bounces back from the disaster of a colossal defeat? These and many other questions could be asked to focus your attention on psychosocial influences on your coaching.

Yet, time will permit only a brief examination of a few subjects. Some of the subjects most perplexing to me are these: the player in the slump, the player who is an outcast (not a scapegoat) of his team, the acquisition of injuries, the coach's emotional fallibility and the need to give players the permission to be great.

Slumps occur in all sports. As a psychiatrist I've treated only one person whose chief complaint was a slump. However, this limited experience was intensive in the number of hours involved and the patient happened to be a major league baseball player. In fine, the slump was caused by this man's unconscious belief that the pitchers were his older brother. The older brother was more successful than the patient in every way except as a baseball player. This young man felt guilty over his success, since it so eclipsed his big brother. The slump came in a setting in which the athlete was threatened by the fact that he was about to find a wife, who would be more esteemed by the society than his brother's wife. That is, he was threatened by the imminence of another success over his brother.

I believe that nearly all player slumps can be more quickly resolved by an intimate knowledge of the player's current emotional life and past background. So when a pass defender suddenly starts losing track of his man or his zone, look at his current life as well as his footwork. See if there is a worry about a grade failure or a jilting from a girl friend or a conflict with mother about what time he gets in from practice. Perhaps you'll find something you can remedy. If not, you've at least made this boy know that you're interested in helping him and that you are understanding.

Psychiatrists are much concerned with why a person isn't accepted by a group. To a football coach this may mean the loss of a good player, for such a boy is likely not to measure up to his potential. Or more tragically, perhaps, a boy will quit football after having made the team. There is no general answer to this problem. In group therapy a person leaves the group or becomes an outcast for many different reasons. Some of the reasons which might obtain in football would include these: different standards (example: 20 years ago, unlike today, a weight lifter might be discriminated against by his peers), inability of the doctor (coach) to take a stand for the outcast (example: to state that lifting weights was o.k. if a guy wanted to do it), fear of being found out (i.e. that there would be noticeable differences in his dependency strivings, sexuality, hostile expressions or prestige yearnings), anger at lack of attention (example: the player couldn't cooperate with his peers since he was not the super star or he felt the coach didn't give him enough attention).

It is a difficult concept to envision that injuries might represent psychologic difficulties. Yet, we know enough now to realize that not only are injuries frequently the inappropriate solution to a conflict, but actually, the injured site has symbolic significance to the person injured. Suffice it to say that football injuries may be the result of unconscious fears (such as being too successful) or may be the unconscious result of desires (such as the desire to get attention and sympathy while finding an excuse for poor performance).

An even more difficult conceptualization is that of how the coach can unwittingly hold back the development of his team because of his own emotional troubles. The psychiatrist has this trouble in treating patients. For a football coach it may be that his own emotional outlook or background will cause him to play favorites. Or he may discriminate against a player who should be playing more regularly. For example, a coach may incorrectly insist on playing a boy because, in actuality, the boys reminds him of himself. Or a coach may take a negative view toward a boy whom he knows to be a ladies' man. The coach may discriminate against this boy, unfairly, because he, the coach, is angry that this teenager is enjoying a life which the coach wishes he had enjoyed. Whenever you feel particularly strong on a boy, be sure it's because of his football ability. You may err in both directions, liking or disliking a boy too much, because of your own life experiences.

When you consider this problem, be sure to realize that it works both ways. Thus, a player also will develop, unconsciously, irrational attitudes toward you as a coach. The player may like or dislike you on the basis of his past life experiences. Therefore, if a boy's father is very strict and much hated by the boy, it might be that your efforts at implementing training regulations will be met with the same hatred the boy feels for his father. It may come also as a shock to consider that your young tigers may see you, psychologically speaking, as a beautiful, giving, indulgent mother. It is not infrequent that a rough, smooth relationship can be assumed with effectiveness by a coaching staff. The lad can picture his backfield coach or line coach as a punitive, authoritative, restrictive parent figure. Thus he is a paternal or father figure. The head coach may wish to be the smoothie or mother figure (which in our culture has considerable say about how the family unit operates). Such coaches are seen by the boys as a person to whom they can appeal to for surcease from the father figure-coach. This indulgent, kind mother figure-coach is someone for whom they can "really play for." It seems logical that someday, some coaches will be technicians and strategists who coach with hardly ever seeing the boys. That is, they will digest scouting reports, make defense plans, etc. Other coaches, who handle boys better, may be the ones who do the field work.

The most difficult concept I'll present to you is the one that it is necessary for you to give permission to your boys to be men. You must tell them over and over and show them that they can be great. Even superstars need this reassurance. Some athletes are prone, for a variety of reasons, to have a "success" neurosis. That is, they are wary about being too successful. When success comes it must be diluted by such means as having an injury or becoming an outcast or going into a slump or amazingly enough by not becoming an all-American.

The Ferdinand the Bull is present in all sports. I knew an Olympian who went out and boozed and made love to a couple of wild coeds. The next day despite this handicap, he broke a world's record. It is as if he said, "suppose I really show my stuff, I'll be too successful and I'll be hurt." I once attended a wrestler of great repute (all the other "major league" wrestlers indicated this was the strongest man amongst them). This man's arm was so large I couldn't fix a blood pressure cuff on it. However, clinically, he was a true hypochondriac. His psychic economy demanded that he think of himself as puny, weak and sickly. Therefore, he could give an excuse not to be too successful—for if he did use all his great strength it might be too awful.

For technical reasons, what we term "psychodynamic factors," you as coaches are in the position to give these young boys per-

mission to be successful men. If you do so, you'll help not only your teams, but you'll speed these boys toward the goal of healthy manhood.

Conclusion

The highschooler has problems of adolescence which can be partially resolved by playing football. In order to be more scientific, the coaches are urged to record more of their observations in order to predict coaching maneuvers which would be successful.

By getting to know more about the boy and his background the coach will be able to make a better athlete. The major effort should be to make all boys feel they belong, and to make them feel they are good and they are supposed to be good. Ideally, the boy will accomplish this when he can be like one of the sport's world's great "old pros," Archie Moore. In a fight in Canada, Archie found himself on the canvas. His immediate thought he reported later was, "this can't be me!" Hopefully, whenever your boys find themselves on their backs they will have a built in monitor of astonishment which will signal them, "this can't be me." Then they'll get up and go on to win.

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800 N.E. 13th, Oklahoma City, Oklahoma

Oklahoma Certificates Mailed Sans Board Secretary's Signature

The final word on the challenge to pharmacy's professional status in Oklahoma has not yet been heard. William J. Vickers, Secretary of the Oklahoma Board of Pharmacy, has refused to sign the 127 assistant pharmacist certificates even though the other four members of the board did sign them. The certificates have been mailed without Mr. Vickers' signature.

"I could not conscientiously . . . " sign the certificates, Mr. Vickers said. The cheating in the August examination session, he states, was a factor in his refusal to sign the certificates. Mr. Vickers does not know whether the certificates are invalidated because he did not sign them, but he points out that he has signed all Registered Pharmacist licenses issued while he has been in office.

The rhubarb erupted when the Supreme Court of Oklahoma issued a mandamus directing the Oklahoma Board of Pharmacy to conduct a licensure examination for all persons over 18 years of age having two years of practical experience in compounding and dispensing physicians' prescriptions. Under an 1897 law, enacted while the area was still a territory, such licensing of assistant pharmacists was permitted. While the court order specified that 107 applicants be examined, the Oklahoma Board of Pharmacy actually examined 210 in an initial test, then followed it up with an examination of 250. Forty-one passed the first test and eighty-five the second.

Efforts to achieve a rehearing on the court ruling were defeated. Subsequently, a suit was brought to test the validity and constitutionality of the 1897 law.

Doctor William S. Apple, Secretary of the American Pharmaceutical Association, has commended Mr. Vickers on his stand against the pressure of the board members and has given his whole-hearted support to the Secretary of the Oklahoma board. Doctor Apple stated: "Mr. Vickers' stand on this issue is definitely in the best interest of the health and welfare of Oklahoma's citizens."

A group of obese captive females maintained continuous loss of weight over a six-month period without diet restriction.

WEIGHT LOSS WITHOUT DIET WORRY

Use of Benzphetamine Hydrochloride (Didrex®)

AUSTIN R. STOUGH, M.D.

Austin R. Stough, M.D., graduated from the University of Tennessee School of Medicine in 1936 and is now in general practice in McAlester.

Doctor Stough is a member of the Southwest Section of the American Urological Society.

THE PROBLEM of obesity is currently the most important one in the field of clinical nutrition. It is generally accepted that its prevention or control should depend on four aspects of total management: diet, exercise, plus the support of encouragement from the physician, and anorexigenic drugs. In practice the last two are used in an effort to help change long standing habits involving excessive caloric intake and insufficient energy expenditure.

Drugs used as one facet of the total management of obesity should have several attributes. They should effectively suppress the desire for excessive food, at least in the great majority of obese patients. This suppression should be prompt in onset and should be persistent over weeks and months, giving the patient optimal opportunity to change permanently his dietary habit pattern. It should, on the other hand, have no or minimal undesirable side effects. It is the purpose of this paper to report a study of these variables during the use of placebo and benzphetamine hydrochloride* in obese female volunteers. Dosage titrations in male and female subjects will also be described and the literature[1-5] reviewed.

Materials and Methods

A. *Efficacy Determinations*

Forty adult obese women were randomly divided into two equal groups. Half were given placebo tablets, one three times daily before meals, for six weeks. The other 20 received 50 mg. tablets of benzphetamine on the same regimen. The two sets of tablets were identical in appearance and were code-labeled. Which was active drug was unknown to us at the time the study was begun.

The control group consisted of eight negresses and 12 white women. They ranged in age from 25 to 63 years (mean, 37.2) and there were four with hypertension (systolic pressure 150 mm. or more, diastolic of 90 mm. or more, or both). The 20 women given the drug were aged 22 to 77 years (mean 46.5). There were six negresses, one Indian and 13 white women. Seven in this group were hypertensive.

Pretreatment baseline determinations of body weight to the nearest half pound were established, as were "ideal" weights using the standards given in the 1959 Society of Actuaries report on "Build and Blood Pressure Studies." Blood pressure and pulse rate

*The Upjohn Company trade name for benzphetamine hydrochloride is Didrex®.

were recorded before drug administration was begun. Thereafter, pulse rates were checked daily, and blood pressures and body weight at weekly intervals. No dietary restrictions were imposed. At the end of this six-week trial, patients who had received benzphetamine were continued on the same regimen for varying periods, to a maximum of 30 weeks.

B. *Tolerance Studies*

The forty obese women already discussed were observed for side effects. We were familiar with the report by Simkin and Wallace[1] and did not expect to encounter much in the way of central nervous system stimulation. Nearly all the women given 150 mg. of drug daily, however, had moderate to severe difficulty getting to sleep the first few nights, as did a few receiving the placebo. In all cases this effect disappeared during the first week of treatment. (In fact, differences were so marked we were unable to avoid identifying the active drug almost from the outset of the experiment. We felt, however, that because of the objective nature of the endpoints—pulse rate, body weight, blood pressure — this knowledge should not influence final interpretation of the data.)

Because of the occurrence of sleeplessness in nearly all the women receiving the drug at the 150 mg. level, a titration was then set up designed to see if side effects were dose-size related and if a "split" could be seen between appetite suppression following doses of less than 150 mg. daily, and the incidence and severity of such side effects as central nervous system stimulation. These volunteers were selected to exclude any who may have taken amphetamine drugs in the recent past to rule out possible cross-tolerance. This program is summarized in the following tabulation:

Group	Subject No.	Sex	Code-Labeled	Dosage Per Day
I	1-10	M	Placebo	½ tablet, t.i.d.
II	11-20	M	Drug	½ tablet (25 mg.) t.i.d.
III	21-30	M	Placebo	1 tablet t.i.d.
IV	31-40	M	Drug	1 tablet (50 mg.) t.i.d.
V	41-50	F	Drug	1 tablet (50 mg.) daily
VI	51-60	F	Placebo	1 tablet daily
VII	61-70	F	Drug	½ tablet (25 mg.) daily
VIII	71-80	F	Placebo	½ tablet daily

In all cases, tablets were given for seven days and each volunteer was interrogated daily for side effects.

In addition to serial pulse rates and blood pressure determinations done in the 40 obese women in the original trial, standard three-lead electrocardiographs were taken on the 18 subjects remaining in the study after 16 weeks' continuous daily administration of 150 mg. of benzphetamine. It was hoped this would round out the status of cardiovascular tolerance to the drug.

Results

A. *Efficacy Determinations*

In the group of 20 women given placebo only three failed to lose some weight during the double blind study of six weeks' duration (see table I). There was recorded a loss of 48.5 pounds and a gain of 7.5 pounds in the group for a net loss of 41.0, or a mean plus-or-minus standard error loss of 2.05 ± 0.47 pounds per subject. Confidence limits at the 95 per cent level extended from -1.13 to -2.97 pounds. There was a loss of only 0.34 pounds per patient per week.

In the drug-treated group (table II), all but one lost weight during the six weeks. There was recorded a total loss of 109.0 and a gain of 3.0 for a net loss of 106.0 pounds. There was a mean loss of 5.30 ± 0.90 pounds per woman. Confidence limits at the 98 per cent level extended from -3.21 to -7.39 pounds, clearly well above the placebo limits. The fact that in this group 0.88 pounds was lost per patient per week pointed up superiority of drug over placebo.

Another criterion frequently used in comparing efficacy of two agents is the performance index (P.I.). This is the actual weight loss divided by the ideal or desired weight loss times 100. It is a useful device for comparing results in different series. In the six-week trial, the P.I. for the placebo group was 4.1 ± 2.2 per cent, less than half that for the benzphetamine group, 11.9 ± 2.4 per cent.

This six-week comparison showed conclusively that benzphetamine effectively induced appetite suppression. It was unex-

No.	Actual Weight	Ideal Weight	Excess Pounds	Change per Week 1	2	3	4	5	6	Total Wt. Change	Percentage of Excess Loss (P.I.)
1	227.0	133.0	94.0	0	—2.0	—3.0	+1.0	0	+0.5	—3.5	3.7
2	134.0	113.0	21.0	0	—1.0	—2.5	+0.5	+0.5	+1.5	—1.0	4.8
3	140.0	119.0	21.0	0	+3.0	—0.5	+0.5	—1.5	—1.0	+0.5	—2.4
4	171.0	126.0	45.0	0	—2.0	—1.5	+3.5	—4.0	+2.0	—2.0	4.5
5	180.0	150.0	30.0	0	—4.0	+1.5	—0.5	—3.0	—2.5	—8.5	28.3
6	190.5	122.0	68.5	0	—4.5	—3.0	+2.0	0	+3.0	—2.5	3.7
7	182.0	147.0	35.0	0	+2.0	0	—2.0	0	0	0	0
8	302.0	151.0	151.0	0	—6.5	+5.5	+0.5	—1.5	0	—2.0	1.3
9	192.5	152.0	40.5	0	—2.5	0	0	0	0	—2.5	6.2
10	194.0	157.0	37.0	0	—1.5	0	—0.5	—1.0	+1.0	—2.0	5.4
11	162.0	153.0	9.0	0	0	0	—2.0	0	+1.0	—1.0	11.1
12	187.5	122.0	65.5	0	—1.5	+4.0	—3.0	0	+1.0	+0.5	—0.8
13	175.5	152.0	23.5	+8.5	—2.0	—2.0	+2.0	0	0	+6.5	—27.6
14	168.0	129.0	39.0	0	+6.0	—5.0	—2.0	—3.0	—0.5	—4.5	11.5
15	178.0	129.0	49.0	0	—0.5	—1.5	+0.5	—2.5	+1.0	—3.0	6.1
16	151.5	119.0	32.5	0	—1.5	+1.5	—1.0	—1.0	—0.5	—2.5	7.8
17	209.0	119.0	90.0	0	—0.5	—2.5	+1.0	+1.0	+1.0	0	0
18	187.0	135.0	52.0	+0.5	—1.5	—1.0	+1.0	0	—2.0	—3.0	5.8
19	228.0	142.0	86.0	0	—5.0	—1.5	+1.5	+0.5	—1.5	—6.0	7.0
20	211.5	135.0	76.5	0	+0.5	—1.0	+1.0	—3.0	—2.0	—4.5	5.9
	TOTALS		1066.0	+9.0	—25.0	—12.5	+5.0	—18.5	+2.0	—41.0	4.1% ± 2.2

Table I. Six-Week Study Results, Placebo Group

pected that so little weight loss would be noted at the end of the first week during which the majority had complained of symptoms of central nervous system stimulation. It seemed from these data that appetite suppression might be an effect of the drug clearly separable from the stimulation for during the second week and thereafter, when

No.	Actual Weight	Ideal Weight	Excess Pounds	Change per Week 1	2	3	4	5	6	Total Wt. Change	Percentage of Excess Loss (P.I.)
21	162.0	136.0	26.0	0	—4.0	—2.5	+0.5	—3.0	+1.5	—7.5	28.8
22	232.0	147.0	85.0	0	—2.0	—2.0	+2.0	—2.0	—2.0	—8.0	9.4
23	211.0	126.0	85.0	0	—1.0	—0.5	—1.5	+1.0	—2.5	—4.5	5.3
24	204.0	133.0	71.0	0	0	0	—1.0	+1.0	—2.0	—2.0	2.8
25*	170.0	140.0	30.0	0	—4.0	—7.0	—2.5	+12.0	+1.5	0	0
26	179.0	139.0	40.0	0	—1.0	+0.5	—4.5	—1.0	—1.5	—7.5	18.7
27	186.0	130.0	56.0	0	+1.0	—4.0	0	—4.5	—1.0	—8.5	15.2
28*	222.5	144.0	78.5	0	—4.5	—4.0	+2.0	—1.5	+3.5	—4.5	5.8
29*	160.5	127.0	33.5	+2.0	—1.5	0	—3.0	0	—3.0	—5.5	16.6
30	205.0	139.0	66.0	0	—7.0	—2.0	—0.5	—1.5	—3.0	—14.0	21.2
31	167.5	142.0	25.5	0	—1.5	+1.0	+3.0	—5.5	—0.5	—3.5	14.0
32*	171.0	151.0	20.0	0	+2.0	+1.0	—1.0	+0.5	+1.5	+3.0	—13.0
33*	170.5	137.0	33.5	0	—3.0	—5.5	+1.0	+5.0	—5.0	—7.5	22.4
34*	300.0	122.0	178.0	0	—1.0	—3.0	+9.0	—8.0	—1.0	—4.0	0.2
35*	215.0	136.0	79.0	0	—2.0	0	+1.0	0	—1.0	—2.0	2.5
36	153.5	129.0	24.5	0	+3.5	—1.5	+1.5	—2.0	—1.5	0	0
37	156.0	142.0	14.0	0	—2.0	—2.0	+1.0	—2.0	+1.0	—4.0	28.6
38	186.0	165.0	21.0	—2.0	0	0	+1.0	—1.0	—4.0	—6.0	28.6
39	235.0	160.0	75.0	—2.0	—1.0	0	—2.0	—3.0	—2.0	—10.0	13.3
40	210.0	153.0	57.0	—4.0	—5.0	+3.0	—4.0	0	0	—10.0	17.5
	TOTALS		1098.5	—6.0	—34.0	—28.5	+2.0	—15.5	—21.0	—106.0 lb.	11.9% ± 2.4

*Hypertensive

Table II. Six-Week Study Results, Benzphetamine Group

side effects were absent, good weight loss was obtained in most instances.

The next question had to do with the *persistence* of effect. As may be seen in figure I, weight loss was seen at all but five of the weekly weighings. There was some aggregate gain at the end of the fourth, 19th and 20th weeks, and no change in weight at the end of the 22nd and 29th weeks. No weighing was done at the end of the 24th week. In the remaining 24 entries, net weight loss was noted. It was concluded from these data that appetite suppression associated with benzphetamine was not only evident within five to ten days of the start of treatment but was persistent and sustained as well for as long as 30 weeks.

The data in table II further document the persistence of the appetite suppressant effect of benzphetamine. Treating the data in terms of six-week periods it is apparent that there was a net progressive weight loss in each of the five periods. The performance index, calculated on the basis of individual P.I.'s, which was 11.9 ± 2.4 per cent at the end of the first six weeks increased each period to a final P.I. of 45.6 ± 7.3 per cent. For the entire study, mean weight loss was 18.90 ± 2.31 pounds (95 per cent confidence limits, -14.5 to -23.3 pounds). This average over-all loss per patient per week was 0.77 pounds. This was especially significant because no dietary restrictions were used.

B. *Tolerance Studies*

Results of the dosage titration clearly showed that undesirable side effects were dose-size related and that there was a "split" in that well tolerated dosages still suppressed appetite. In group IV, the ten men given 50 mg. of drug three times daily, all complained of difficulty in getting to sleep during one or more of the first five nights of the trial. Six complained of polyuria, two each of constipation and loss of taste. One reported increased appetite. There were no complaints after the fifth night. In group II, the ten men given 25 mg. three times daily, the following side effects were noted: insomnia (4), euphoria (4), and one each reported nausea, dizziness, dry mouth and nervousness. Again, no side effects were reported during interviews on the sixth and sev-

No.	Excess Pounds	Weight Changes per Six Week Period[1] 1	2	3	4	5	Total Wt. Change	No. Weeks in Study	Lb. Lost per Week	Percentage of Excess Lost (P.I.)
21	26.0	—7.5	—12.5	—4.0	—2.0	—2.0	—28.0	27	1.04	108.0
22	85.0	—8.0	—11.0	—8.0			—27.0	16	1.69	31.8
23	85.0	—4.5	—2.5	—8.0	—9.0	+3.0	—21.0	27	0.78	24.7
24	71.0	—2.0	—2.0	—4.0	—1.0		—9.0	18	0.50	12.7
25*	30.0	0	—6.0	—4.0	—5.0	0	—15.0	27	0.56	50.0
26	40.0	—7.5	—0.5	—1.0	—2.0	0	—11.0	27	0.41	27.5
27	56.0	—8.5	—8.5	—3.0	+8.0		—12.0	19	0.63	21.4
28*	78.5	—4.5	—5.5	—5.0	0	—3.0	—18.0	27	0.67	22.9
29*	33.5	—5.5	—8.0	—7.0	—8.0	—7.0	—35.5	27	1.31	106.0
30	66.0	—14.0	—13.0	—6.0	—5.0	—6.0	—44.0	27	1.63	66.7
31	25.5	—3.5	—1.0	—2.0	+2.0	0	—4.5	27	0.17	17.6
32*	20.0	+3.0	—9.0	—6.0	+3.0	0	—9.0	27	0.33	45.0
33*	33.5	—7.5	—6.0	—7.0			—20.5	13	1.57	61.2
34*	178.0	—4.0	—15.0	—6.0	+5.0	—5.0	—25.0	27	0.93	14.0
35*	79.0	—2.0	—3.0	—4.0	—1.0	—5.0	—15.0	27	0.56	20.3
36	24.5	0	—0.5	—5.0	+2.0	—1.0	—9.0	27	0.33	36.7
37	14.0	—4.0	—7.0	—1.0	+2.0		—10.0	22	0.46	71.5
38	21.0	—6.0	—2.5	—10.0	—2.0	—4.0	—24.5	30	0.82	116.6
39	75.0	—10.0	—7.0	—5.0	—5.0	—3.0	—30.0	30	1.00	40.0
40	57.0	—10.0					—10.0	6	1.66	17.5
	1098.5	—106.0	109.5	—96.0	—18.0	—33.0	—378.0 lb.	478	0.79	45.6% ± 7.3

Table III. Thirty-Week Benzphetamine Study Results

*Hypertensive

[1]After first six weeks subjects dropped out from time to time; see Figure I for numbers of patients in study, by weeks.

enth days. The ten men in group III, who received one placebo before each meal, complained of dizziness (2), insomnia (1) and pain in the shoulder (1). In the remaining groups which were given placebo, 50 mg. of drug once each morning (group V) or 25 mg. once daily (group VIII) there were no complaints whatever. The only prominent and consistent effect reported in groups V and VII toward the end of the week was appetite suppression, especially during the evening meal. This qualitatively resembled that reported in the original double blind study and in groups II and IV of the titration. The subjects would be as hungry as usual at meal time but after eating less than they previously had they would feel satisfied. It required less food than previously to give them a "full" feeling.

Results of the serial observations concerning cardiovascular tolerance were of interest. No significant variations in pulse rate were noted. The serial blood pressure data were analyzed in detail. In the six-week placebo group of 20 women, the final mean systolic pressure differed from the pretreatment value by -3.60 ± 3.07 mm. Hg. The 95 per cent confidence limits were +2.42 to -9.62 mm. The mean diastolic pressure was also unchanged: +0.60 ± 2.06. In the 20-woman group given benzphetamine, somewhat lower values were found. Analysis of the 20 final blood pressure determinations showed that the mean systolic value was -10.80 ± 3.09 mm., with a 95 per cent confidence interval extending from -4.75 to -16.85. Mean diastolic pressure was -3.40 ± 1.89, the interval being from +0.31 to -7.11 mm. Hg. Since systolic and diastolic limits overlapped, it was concluded that there were no significant differences between control and treatment groups.

Separate analysis of the group of seven hypertensive women given 150 mg. of benzphetamine daily for a total of 175 weeks showed that diastolic pressure was unchanged (mean -3.40 ± 2.81; limits, +2.11 to -8.91). The systolic value, however, had clearly and significantly fallen below the placebo control values. Mean systolic pressure reduction in this group was -22.00 ± 4.95. The 95 per cent confidence limits extended from -12.30 to -31.70, well below the lower control limit of -9.26 mm. Hg. It should be pointed out that these seven women enjoyed a total weight loss of 138.0 pounds during their participation in the study, a fact which almost certainly favorably influenced their blood pressure values.

The set of 18 electrocardiographs taken at the end of 16 weeks' treatment were read by a cardiologist unacquainted with the subjects or the nature of the trial. Two were interpreted as borderline tracings because of premature beats in one, evidence of posterior myocardial ischemia in the other. Three weeks later, and while still taking benzphetamine, 150 mg. daily, tracings were repeated and found to be unchanged. Inquiry showed the former subject was a 60-year-old woman with a history of periodic thyroid upsets. She was, incidentally, one of the subjects in this study to complete the full 30 weeks' trial without incident. Similarly the subject with ischemic changes on her tracing was a woman of 58 with known cardiac difficulties in the past. She completed 27 weeks of the trial also without incident.

Discussion

The data on *efficacy* of benzphetamine reported here resemble those already in the literature. Simkin and Wallace,[1] for example, reporting on patients given either 25 or 50 mg. three times daily for eight weeks or more, found a mean total loss of 16.01 ± 2.37 pounds per patient. A recent study by Poindexter,[2] in which a series of drugs was used for two-week "periods," showed that mean weight loss in 36 patients given benzphetamine for a total of 252 weeks was 18.00 ± 1.82 pounds. The comparable figures for the study reported here, in patients treated somewhat longer (average, 23.9 weeks), were 18.90 ± 2.31 pounds. All of these results were distinctly less than those reported by Schapiro and Bogran.[3] They conducted a 20-week trial using a flexible dosage scheme involving "from 75 to 300 mg. daily in divided doses."[6] Nine men given benzphetamine lost an average of 22.7 ± 2.0 pounds during this time and 12 women similarly treated lost 30.4 ± 3.4 pounds. These and other key data from the literature have been presented in table IV which sum-

Investigators	No. Pts.	Mean Duration of Rx (wks)	Mean Actual Wt. Change (lbs.)	Mean Loss/Pt. Week (lbs.)	Mean P.I. (%)
Simkin-Wallace[1]					
Drug	18	17	—16.01 ± 2.37	—0.90 ± 1.2	32 ± 3.81
Placebo	21	16	—4.36 ± 1.84	—0.28 ± 0.13	9 ± 3.82
Poindexter[2]					
Drug first	17	11.6	—18.7 } 18.00 ± 1.82	—1.74	33.6
Drug second or third	19	9.1	—17.5 }	—1.93	
Placebo first	26	7.5	—6.7	—0.90	8.7
Placebo second or third	10	5.2	—0.2	—0.04	
Schapiro-Bogran[3]					
Drug, males	9	20.0	—22.7 ± 2.0	—1.14 ± 0.10	92.0 ± 8.2
Drug, females	12	20.0	—30.4 ± 3.4	—1.52 ± 0.17	90.4 ± 5.1
Placebo, males	12	20.0	+ 3.0 ± 1.4	+0.15 ± 0.7	—13.5 ± 7.1
Placebo, females	13	20.0	+ 1.2 ± 1.4	+0.06 ± 0.07	— 4.6 ± 3.9
Oster-Medlar[4]					
Drug	24	4.0	— 7.5	—1.75	17.0
Placebo	25	4.0	0	0	0
Rhoades[5]					
50 mg. Drug daily	14	4.15	—5.70	—1.34	44.3
100 mg. Drug daily	30	5.15	—8.44	—1.64	60.7
150 mg. Drug daily	6	3.84	—6.00	—1.57	43.5
This study 30-Wk	20	23.9	—18.90 ± 2.31	—0.79	45.6 ± 7.3
6-Wk Drug	20	6.0	— 5.30 ± 0.90	—0.88	11.9 ± 2.4
6-Wk Placebo	20	6.0	— 2.05 ± 0.47	—0.34	4.1 ± 2.2

Table IV. Summary of Reported Experience with Benzphetamine in the Control of Obesity

marizes the experience of 169 patients treated with benzphetamine for 1,939 weeks. Although there is some variation from one study to another, all support the thesis that benzphetamine effectively suppresses appetite in the majority of obese patients.

From the standpoint of *persistence* of action, the present study is the most prolonged thus far reported. Treatment was given for from six to 30 weeks, the average duration being 23.9. Figure I clearly shows that weight loss was sustained, confirming and extending the reported experiences of Simkin and Wallace,[1] Schapiro and Bogran,[3] and Poindexter.[2] Prolonged, sustained appetite suppression is an essential attribute in this class of drugs. Since obesity is controlled rather than cured, and because control should involve an attempt to change permanently the obese patient's dietary habits, the knowledge that drug activity may last for half a year or perhaps longer is reassuring. Such a time span should give most patients seriously interested in reducing to their ideal weights ample opportunity to modify their eating habits.

Long-term *tolerance* to the drug was excellent. In this study a peculiar dissociation was noted in that, during the first few days, when symptoms referable to central nervous system stimulation were troublesome, appetite suppression did not appear to be effective. Only three of the 20 patients lost weight by the end of the first study-week and one gained two pounds. During the second week and thereafter the drug appeared to "take hold" and by the end of six weeks 17 had lost weight. The weight loss, therefore, occurred after the undesirable side effects had permanently subsided. And this occurred during a fixed dosage regimen of 50 mg. of drug three times daily, without dietary restriction.

The tolerance titration clearly showed that early side effects were dose-size related. Subjects given dummy tablets, 25 mg. or 50 mg. single mid-morning doses of benzpheta-

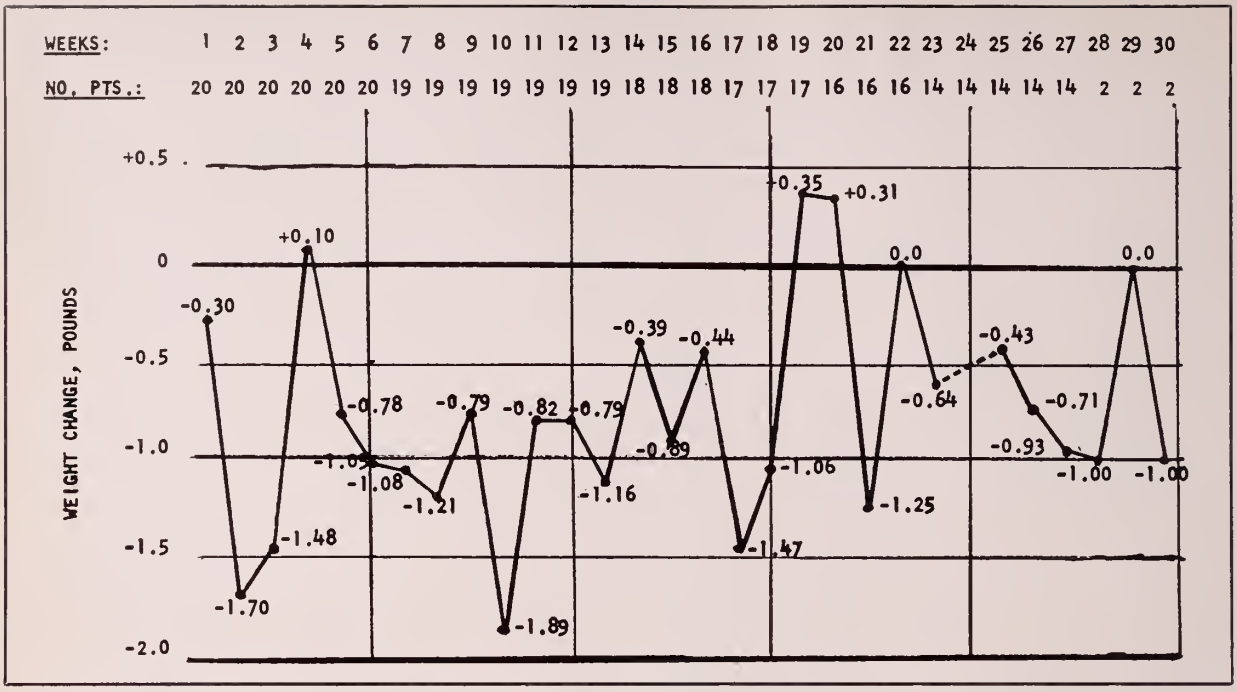


Figure 1. Mean Weight changes, by weeks, in patients continuously receiving 50 mg. of benzphetamine hydrochloride three times daily before meals.

mine had no complaints. Those given these doses of the drug experienced some degree of appetite suppression during the one-week trial. That the arbitrarily selected dosage of 50 mg. three times daily before meals may be excessive and unnecessary was also suggested by Oster and Medlar.[4] Using groups of ten men each they compared side effects and weight loss during a one-week trial of 50 or 25 mg. of drug and one-half and a whole matching placebo tablet. Appetite suppression was noted in all men given 50 mg. three times daily before meals and in nine of ten given 25 mg. doses. Other side effects were markedly reduced with the lower dosage. The group given 150 mg. daily lost a net total of 22.5 pounds during the week; none gained weight. The ten men given 75 mg. daily lost a 31.5 pound total. One man gained four pounds so the net loss for the group was 27.5 pounds. They pointed out that in practice 25 mg. three times daily might be fully as effective as larger doses. The titration here reported suggested that even smaller amounts, 25 mg. or 50 mg. given only once daily, hold promise of effective appetite suppression without troublesome side effects. According to Poindexter,[2] the drug is to be announced with the recommendation that single mid-morning doses be used to initiate treatment. Thereafter dosage should be varied according to the needs of the individual patient. On the basis of our experience, we concur with this recommendation for benzphetamine is a potent amphetamine-type drug the dosage of which, like digitalis or insulin, for example, ought to be evaluated and readjusted from time to time to fill each patient's particular needs. That such a flexible method may be more efficacious than rigid regimens is suggested by the remarkable results reported by Schapiro and Bogran[3] (see table IV) who deliberately used such an approach.

Benzphetamine has now been used successfully to help reduce obese patients with hypertension.[2-5] In the study reported here it was possible to show a significant reduction in systolic pressure in this group. This tendency was also noted by Poindexter[2] who explained it on the basis of increased familiarity of patients with clinic personnel and procedures. Rhoades[5] felt the return of elevated pressures toward normal could best be attributed to the loss of body fat as weight reduction was accomplished. It is likely that both explanations probably apply to some degree. It is noteworthy, from the standpoint of safety of the drug, that two

of Rhoades' three obese pregnant women were hypertensive. All enjoyed good weight control and delivered healthy babies. Mention should also be made of the important observation of Oster and Medlar[4] that even 200 mg. single doses of benzphetamine had no appreciable effect on fasting blood sugar curves indicating that the drug may safely be used in obese diabetics. Finally, it should be pointed out that even after having taken 150 mg. of benzphetamine daily for as long as 30 weeks, there was no evidence of mental disturbance or addiction as has been reported with other appetite suppressant drugs.[6,7] Administration was halted in all cases without incident.

Altogether, in the light of accumulated experience, one can conclude that benzphetamine has considerable promise as a safe, efficacious, persistently effective appetite suppressant. Used together with exercise, dietary discretion and encouragement from the physician, it should facilitate the change in eating habits so essential to permanent control of obesity.

Summary

Studies were done to evaluate *efficacy* of benzphetamine hydrochloride (Didrex®) as an appetite suppressant. A six-week comparison of placebo and 50 mg. drug tablets given three times daily before meals to groups of 20 obese women yielded a mean weight loss in the placebo group of 2.05 ± 0.47 pounds. The 20 women given benzphetamine lost an average of 5.30 ± 0.90 pounds (superior at the 98 per cent confidence level).

To study the *persistence* of the appetite suppressive effect, patients in the treatment group were continued for up to 24 additional weeks on the same regimen. Weight loss continued nicely with a final mean total loss of 18.90 ± 2.31 pounds. No dietary restrictions were imposed during these studies.

Tolerance was excellent except for transitory troublesome central nervous system stimulation during the first five or less days. There were no effects on pulse rate or on electrocardiographs taken on 18 subjects after 16 weeks' treatment with 150 mg. of benzphetamine daily. Blood pressure in the 20 women was unchanged throughout but a group of seven hypertensive subjects had a mean reduction of 22.00 ± 4.95 mm. Hg. in systolic pressure (significant at the 98 per cent level). During 25.0 weeks of treatment, on the average, they lost a total of 138 pounds which probably best explains the reduction.

A *dosage titration* was carried out and it was found that single 25 and 50 mg. doses, given in mid-morning, produced no side effects whatever. At 75 mg. daily, given in three 25 mg. does, central nervous system stimulation was observed in several subjects. At 150 mg. daily in divided doses, stimulation was seen in all. It was concluded that optimal results should follow initiation of treatment with 25 or 50 mg. once daily, in mid-morning, with dosage adjustments as frequently as indicated thereafter.

Altogether, after reviewing these results and the data reported in the literature by others, one can conclude that benzphetamine has considerable promise as a safe, efficacious, persistently effective appetite suppressant. It may be especially useful in obese patients who are also pregnant, diabetic or hypertensive. Used together with exercise, dietary discretion and encouragement from the physician, it should facilitate the change in eating habits so essential to permanent control of obesity.

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MEDICAL  CENTER

Message from the Dean

Events in medicine in our generation have demonstrated that practice does not make perfect in every sense. Improvement of medical practice results chiefly from instruction by inspired practicing physicians and institutional teachers who continually investigate new possibilities. The maintenance of medical heritage is dependent upon them.

Those who receive the benefits of good professional teaching have little basis for evaluating the methods employed. They are totally dependent upon the integrity, skill and wisdom of the instructor.

The success of a medical teacher requires a continuing interest in his medical school and in the university as a whole, and his active influence outside the university for the maintenance of the best in medical education. The greatest asset for accomplishing this end is to remain a student at heart, and to continue to learn along with the developing school. It involves the understanding of the students as the coming generation, who will probably live in a day so different from ours that we cannot picture it accurately.

He is best suited for teaching who takes such pleasure in explaining things that he will do this in preference to anything else. This he can do to the best advantage if he has a kindly sense of humor, an ability to see more than one asepct of a thing at a time, and to relate a new idea to those already present in the student's mind.

A university appointment carries responsibility and should be offered only on the basis of professional and teaching competence. Those accepting appointments must be willing to fulfill their assignments with fidelity. The assignments should be reasonable ones, which the faculty member can carry out diligently and effectively.

Every now and then someone passes the word that a medical faculty is a clique. This statement is true; the clique consists of faithful faculty members who spend time and energy on certain tasks and who believe that the more they put into their medical school the more they get out of it. It is not difficult for others, capable and qualified, to join such a clique. The passport is constructive interest, helpful suggestion and acceptance of educational responsibility.

When the teacher in a medical school does his work well, it makes no real difference to what extent he earns his living from salaries, fees, patient services, the Internal Revenue Department or the New York Stock Exchange. These are things that are Caesar's.

The many hours which our diligent teachers have spent, in the library, the laboratory, the classroom, the teaching clinic and in study of disease at the bedside, have brought them lasting satisfaction and deserved respect. Such good teachers have guided many students into successful careers, and thus, they have not labored for their days alone.

Mark R Everett

Serum glycoprotein concentrations are elevated in many pathological conditions. The significance of such elevations and the possible mechanisms involved are discussed.

Studies of the Blood Serum Glycoproteins in Disease and After Injury*

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M.Sc., Ph.D. (London), F.R.I.C.

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Doctor Keyser is a member of the Biochemical Society, the Chemical Society and the Association of Clinical Biochemists, United Kingdom.

IT HAS been known for many years that the plasma proteins contain a quantity of more or less firmly bound carbohydrate. Most of this is found in the α- and β-globulins. Athough the precise structure of the carbohydrates occurring in the various protein fractions has not been established and the plasma contains a large number of different glycoproteins, six regular carbohydrate components have been identified. These are the hexoses, galactose and mannose; the hexosamines, glucosamine and galactosamine; the methyl pentose, fusoce; and the amino sugar acid ,sialic acid. The chemistry of the plasma glycoproteins has recently been reviewed by Winzler.[1]

The terminology in this field is somewhat confusing, though the meaning of a particular term is usually apparent from the context in which it is used. The term *serum glycoprotein* is generally used to indicate any serum protein containing significant amounts of carbohydrate. The serum total glycoproteins may be estimated by measuring the hexose content of the total proteins after precipitation with ethyl alcohol. About one-tenth of the total serum protein-bound carbohydrate occurs in the *seromucoid* fraction —a perchloric-acid-soluble fraction often called *serum mucoprotein*. Seromucoid, which is of course included in the determination of total glycoprotein, is separated (though not quantitatively) by precipitation of the other proteins with perchloric acid and filtration; it can then itself be precipitated with phosphotungstic acid, after which its hexose, hexosamine or protein content can be estimated.[2] From its method of estimation the seromucoid fraction would appear to correspond to the polypeptide-like substances occurring in trichloracetic acid filtrates of serum (Hahn, 1921[3]; Wolff, 1921[4]) and precipitable therefrom by tungstic or phosphotungstic acid.

The distribution of carbohydrate among the electrophoretically separated protein fractions can be estimated approximately by the periodic acid-Schiff procedure of Köiw and Grönwall[5] (see figure 6).

Normal Values

These have been discussed in detail by Shetlar and his collaborators.[6] The present writer's observations are summarized in

*Based on a seminar lecture given at the University of Oklahoma School of Medicine on April 27th, 1959.
**Senior Lecturer in Chemical Pathology, The Welsh National School of Medicine, Cardiff, Great Britain.

table I and are essentially in agreement with those of other investigators.

	Total protein-bound hexose*			Seromucoid-bound hexose*		
	Observed range	Mean	S.d.**	Observed range	Mean	S.d.**
Series 1	102-139	119	12	10.0-13.0	11.9	1.2
Series 2	106-130	116	13	9.0-13.5	11.9	2.1

*Mg. per 100 ml. serum
**Standard deviation

Series 1 consisted of 18 people, mostly males.
Series 2 consisted of 6 women, about 8 observations being made in each case.

Table I. Normal values for human serum protein-bound hexose (orcinol method).

Role of the Glycoproteins

The place that the serum glycoproteins have in body function is, for the most part, obscure. Werner[7] has suggested that the increases in the glycoprotein content of serum that occur in conditions of protein loss might indicate a rôle in the formation of serum proteins, the carbohydrate-rich fractions of the α- and β-globulins being perhaps intermediate stages in the synthesis of other proteins. According to Jayle,[8] the carbohydrate-rich protein haptoglobin probably participates in the metabolism of haemaglobin and might even function in the defence of the body by combining with toxic substances of endogenous or exogenous origin. Apart from these speculations, certain plasma proteins with specific physiologic functions are known to be glycoproteins (e.g., prothrombin), but these form only a minute fraction of the total glycoproteins of the plasma.

Changes in Disease

Although the part played by these proteins is obscure, alterations in the plasma level are known to occur in many conditions, such as carcinoma, pneumonia and tuberculosis. The reader is referred to recent reviews by Shetlar[9] and by Stary.[10,11] It has been the writer's object to try and elucidate the significance of these changes. If few of the many other workers in this field receive mention in this paper it is only because it has been the writer's aim to present, mainly, a brief outline of work with which he has been personally associated.

The writer's interest in the subject arose out of a paper by Seibert and her colleagues,[12] who applied Cohen's tryptophan-perchloric acid reaction[13] to blood serum and in 1948 reported that serum from patients with tuberculosis or carcinoma contained an increased amount of reacting substance. They attributed this to an unidentified polysaccharide. Earlier work by the same group had led to the suggestion[14] that increases in the serum concentration of "polysaccharide" (i.e., glycoproteins) might be associated with tissue destruction. It seemed that Seibert's hypothesis might be tested by applying the tryptophan-perchloric acid test to serum from patients suffering from burns, in whom of course destruction of tissue is known to have occurred. Figure 1 shows the results obtained in three burns cases.[15] Clearly, the injury resulted in an increase in reacting substance. Rises of from 30 to 150 per cent were found (seven patients) with the peak value occurring several days after the injury. Spectrophotometric examination of the coloured reaction mixture showed that serum from burned patients gave the same absorption peaks as did serum from normal, healthy people and from patients with carcinoma. The finding of an increased reaction after burning is at least consistent with Seibert's hypothesis, though of course factors other than tissue destruction might have been responsible for the rise.

The tryptophan-perchloric acid reaction has since been shown[16] to depend on the presence of sialic acid (acetylneuraminic acid) in the serum proteins, but in 1949 when this work on burns was done the nature of the reacting substance was unknown. It was

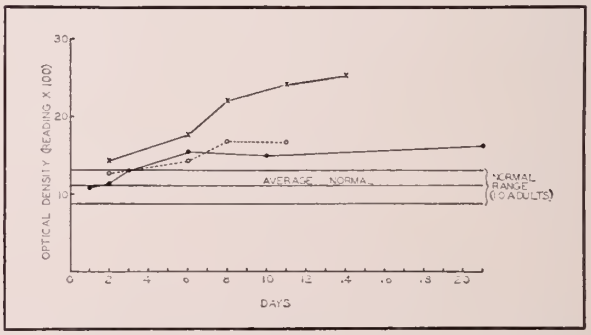


Figure 1. Rise in tryptophan-perchloric acid-reacting substance in the serum after burning. Results in three typical cases are shown. Results in three other cases are omitted for clarity. Day 1 is the day of the burn. (J. Clin. Path. 3: 106, 1950.)

therefore considered desirable to repeat the work, employing a method believed to be more specific for protein-bound carbohydrate (hexose). The orcinol method was chosen, and application of the test to serum from patients with burns and fractures showed that substantial increases occurred after injury, both in total serum glycoproteins and in the seromucoid fraction. Both fractions reached a peak concentration, usually several days after the injury.[17] These findings again are at least consistent with the "tissue destruction" hypothesis.

The writer was not aware, at the time of this investigation, of the work of Shetlar and his colleagues,[18] at the University of Oklahoma, who had in 1948 found that various injurious stimuli (resulting from, e.g., the injection of turpentine or talc) produced in animals substantial increases in serum protein-bound carbohydrate. They interpreted these increases as being associated with healing and proliferation, however, rather than with destruction of tissue. In a later paper Shetlar[19] suggested, on the basis of salt fractionation, that elevation of α-globulin-bound hexose was associated with fever or tissue destruction, and elevation of albumin-bound hexose with proliferative processes.

It seemed of interest and importance to try and choose between the "tissue destruction" and "tissue proliferation" hypotheses.

Effect of Nitrogen Mustard and Irradiation Therapy

At the suggestion of Professor J. Gough the effect of nitrogen mustard or irradiation therapy on the level of serum glycoproteins in patients with tumours was next investigated.[20] These patients had elevated levels of glycoproteins, and as a result of serial estimations it was found that treatment that resulted in clinical improvement was generally associated with a fall in this level towards normal. Changes in seromucoid levels paralleled those in serum total glycoproteins. Although these findings might appear to favour the view that a rise in serum total glycoprotein and seromucoid is connected in some way with tissue proliferation, it could be objected that the fall in glycoprotein and seromucoid resulting from treatment might have been a secondary effect due to inhibition of a break-down process occurring in and around the tumour and depending on tumour growth. Such a break-down process might be expected to be greatest when the tumour is growing rapidly, and to be retarded when the tumour is subjected to an inhibitory influence. It must be admitted, therefore, that these observations do not decisively favour either of the hypotheses under investigation.

In this connexion the work of Catchpole and Gersh is of interest. Working with mice, Catchpole[21] found that the connective tissue bordering on tumours contained increased amounts of water-soluble mucoproteins; and histochemical studies suggest that in the region of tumours a process of depolymerization is taking place, whereby the components of the ground substance may become water soluble and so enter the general circulation as mucroproteins.[22] The existence of such a mechanism, if proved, might go far towards reconciling the "tissue destruction" and "tissue proliferation" hypotheses referred to above.

On the other hand it is possible that the increased concentration of seromucoid in the tissues surrounding tumours might be the result of inflammatory exudation of plasma

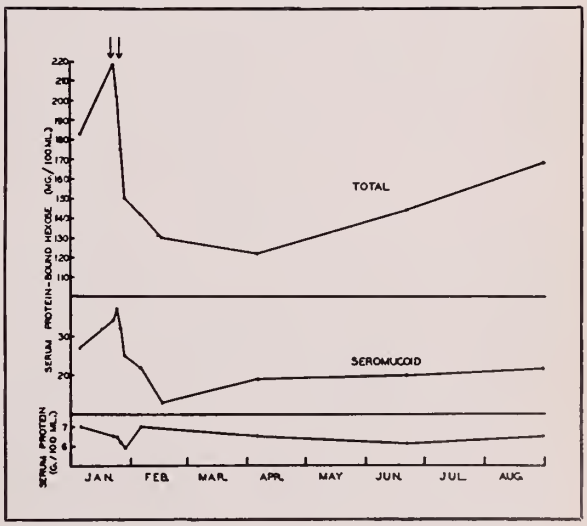


Figure 2. Effect of nitrogen mustard (di [2-chloroethyl] methylamine hydrochloride) on the serum level of protein-bound hexose in a patient with Hodgkin's disease.

The arrows indicate the beginning and end of the period of treatment (six 5-mg. doses). (Brit. J. Cancer 8: 238, 1954.)

rather than local liberation from the tissues.[23]

Figure 2 illustrates the rapidity with which changes in the serum level of glycoproteins can occur as a result of treatment.

Muscular Wasting

In collaboration with clinical colleagues the writer next studied a series of patients with muscular wasting (myopathies, motor neurone disease, etc.[24]). The object was to obtain states of tissue break-down uncomplicated, as far as could be seen, by regeneration. Patients were classified as either (a) actively wasting or (b) probably not actively wasting at the time of the observation, clinical assessment being made without knowledge of the chemical findings. A significant difference was found between the means for the two groups, in respect of both total glycoprotein and seromucoid hexose, the actively wasting patients usually having raised levels. This result suggested some connexion between a raised serum level of glycoproteins and break-down of tissue. Generally, patients with raised total glycoproteins showed an increase in seromucoid and albumin-bound hexose (26 per cent Na_2SO_4 fractionation) also.

Glycoproteins and Nitrogen Balance

The next step appeared to be to try and correlate elevation of glycoproteins with nitrogen metabolism in persons who had suffered physical injuries. As mentioned above, injury causes a rise in serum glycoprotein concentration; and it has been known for a long time that injured persons often show a substantial rise in urinary nitrogen output.[25-27] There appears to be, however, no correlation between elevation of glycoproteins and nitrogen catabolism:[24] sometimes the peak glycoprotein level is passed before the onset of the catabolic phase (figure 3), and sometimes the elevation persists after urinary nitrogen excretion* has returned to normal (figures 4 and 5). Generally, the

*It would seem that the "catabolic phase" is best demonstrated by the increase in urine nitrogen output rather than by the negative nitrogen balance, provided that the patient's nitrogen intake is reasonably constant over the relevant period and provided also that any increased output of nitrogen is not simply due to subsidence of an azotaemia. Determinations of serum non-protein nitrogen showed that this last source of error was not operative in our patients; nor could any rise in urinary nitrogen be attributed to food intake: in fact, the rise in urine nitrogen shown in figure 3 was associated with a slightly decreased food intake.

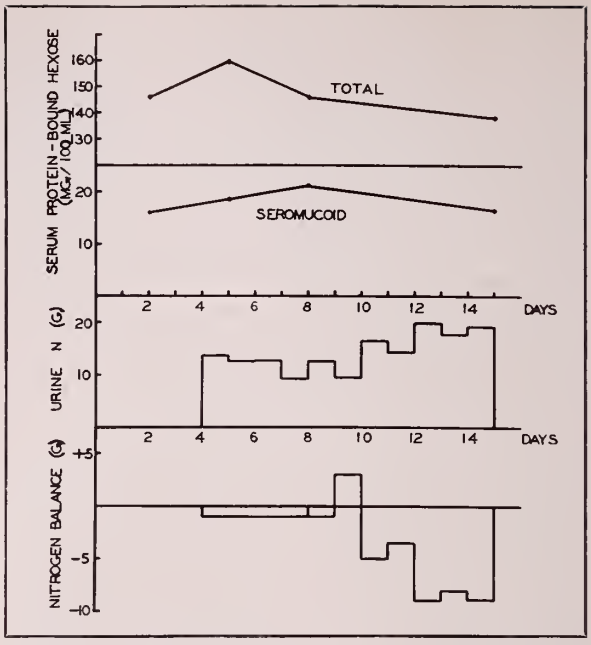


Figure 3. Serum total protein- and seromucoid-bound hexose, urine total nitrogen excretion and nitrogen balance in a woman, aged 37, with fractured tibia and fibula.

Day 1 is the day of injury.

concentrations of albumin- and seromucoid-bound hexose paralleled that of total protein-bound hexose.

In this type of case, at least, the rise in protein-bound carbohydrate cannot be attributed to tissue break-down as measured by urinary nitrogen excretion.

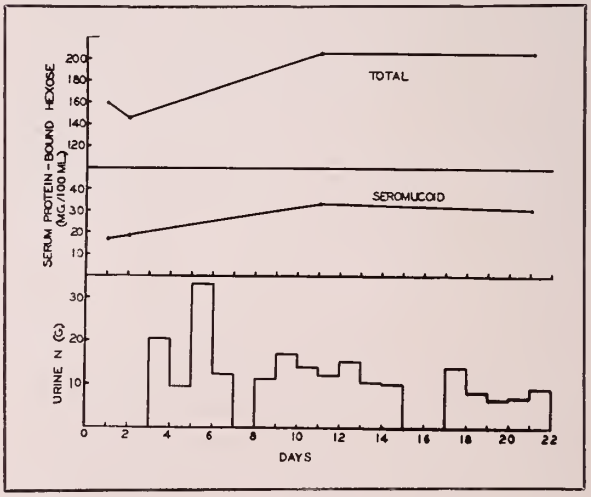


Figure 4. Serum total protein- and seromucoid-bound hexose and urine total nitrogen excretion in a man, aged 44, who sustained fracture of left tibia, lacerations and multiple abrasions. Transfusion of plasma on admission to hospital. Urine passed in 24-hr. period from day 5 to day 6 contained 1.5 g. of creatine.

Day 1 is the day of injury.

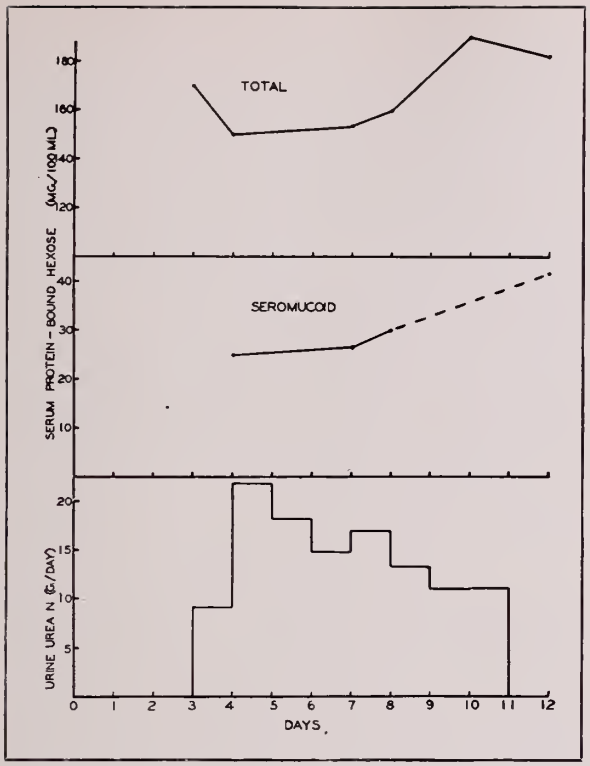


Figure 5. Serum total protein- and seromucoid-bound hexose and urine *urea* nitrogen excretion in a man, aged 67, with fracture dislocation of vertebra L1.
Day 1 is the day of injury.

Histologic Studies

The conclusions drawn from many investigations in the past have depended on correlation of serum glycoprotein levels either with the clinical state of patients or with the gross appearances of experimentally induced conditions—e.g., in experiments with tumours, on the size of the tumour. Such procedures appear to be unsatisfactory, from the point of view of the present inquiry, since tissue formation and destruction commonly coexist in varying proportions both in inflammatory and in neoplastic states: microscopic study is necessary to determine the exact types of change and their extent. Doctor A. G. Heppleston and the writer therefore decided to investigate changes in the serum glycoprotein levels in an experimentally induced inflammatory process. Particulate silica given by intraperitoneal injection was adopted as the inflammatory stimulus on account of its well known fibrogenic capacity and because an acute reaction with necrosis is prominent in the early stages. Rabbits were given an intraperitoneal injection of silica and serial blood specimens were taken from the ear for chemical estimations. The animals of one series were killed at intervals to provide information about the state of the inflammatory reaction at any given time. Briefly, it was found that the elevation of protein-bound carbohydrate (both total and Na_2SO_4-separated-albumin-bound) closely paralleled the early acute inflammation induced in the peritoneal cavity by the silica and that the glycoprotein levels *fell* when silicotic fibrosis and macrophage response became prominent. The administration of cortisone did not materially affect the rise or fall in glycoprotein concentration, and the acute inflammatory reaction did not appear to be significantly modified by it. Fibrosis and macrophagocytosis were, however, considerably inhibited by cortisone.[28]

In these experiments, therefore, increase of serum glycoproteins can be correlated with acute inflammation but not with tissue formation.

Application of the periodic acid-Schiff procedure to the electrophoretically separated serum proteins (two rabbits) indicated that the rise in protein-bound carbohydrate observed after intraperitoneal injection of silica occurred mainly in a fraction that may perhaps be designated an α-globulin (figure 6). There was some increase in the other globulin carbohydrate fractions also. Injection of corticotrophin A_1 (see below) also led to an increase mainly, but not entirely, in the α-globulin region.

Tumour Growth

A raised level of total protein-bound carbohydrate in the serum is well recognised to occur in various forms of human carcinoma. It is known that tumour-bearing animals also may have elevated serum glycoproteins. From studies on rats bearing the Walker 256 carcinoma Shetlar, Erwin and Everett[29] suggested that the rise in the carbohydrate associated with the "albumin" fraction might be related to the growth of the tumour. Weimer and his colleagues[30] observed an increase only in the seromucoid fraction and a decline in the other serum glycoproteins of rats implanted with the Walker carcinoma. They considered that the

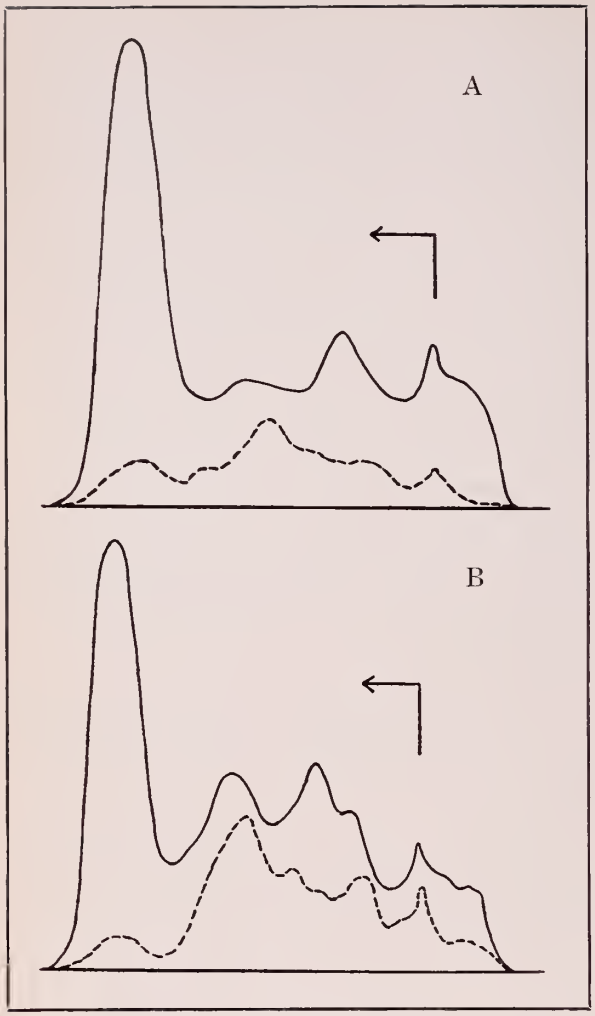


Figure 6. Serum protein and protein-bound carbohydrate in a rabbit (A) before and (B) 2 days after intraperitoneal injection of 2 g. of silica.

Patterns obtained by separating proteins electrophoretically on paper strips, staining and passing strips through photoelectric "scanner." Continuous line represents protein. Interrupted line represents carbohydrate (P.A.S. stain).

increase in the seromucoid might indicate a systemic response to tissue damage whilst the decreases in the other glycoproteins might be due to their utilization by the rapidly growing tumour. The serum carbohydrate levels have also been followed in rats bearing a transplanted sarcoma by Baldwin and Harries,[31] who found the rise in total glycoprotein to be largely a reflection of changes in the seromucoid fraction. They attributed the abnormal production of seromucoid to processes occurring during tissue proliferation rather than to elimination of tissue glycoproteins in consequence of degenerative changes in the tumour and surrounding tissue, but in this interpretation only the weight of the whole tumour was considered.

Disagreement thus exists as to which fractions of the serum proteins carry the raised amounts of carbohydrate, as well as on the parts played by tissue proliferation and destruction in producing the elevation. Although differences in technical methods may account for some of these divergences, another explanation may be found in the fact that in none of the above-mentioned experimental studies were the relative proportions of viable and necrotic tumour tissue assessed, the state of the tumours being judged solely by their size.

Doctor Heppleston and the writer therefore reinvestigated the relation of serum glycoprotein levels to tissue formation and destruction in rats bearing the Walker 256 carcinoma.[32] An assessment was made of the amounts of viable and necrotic tumour tissue present in relation to the size of the animal. Significant elevations were found in tumour-bearing animals in the amounts of hexose bound by serum total protein, by α_2-globulin (estimated by the Köiw-Grönwall procedure), by seromucoid and by the non-seromucoid fraction (i.e., total protein-bound carbohydrate minus seromucoid-bound carbohydrate). The results did not provide a clear distinction between the effects of tissue growth and tissue break-down. However, it can be stated that there was a lack of relationship between the elevation in either total protein-bound or α_2-globulin-bound hexose, on the one hand, and, on the other hand, the weight of the tumour or of its viable and necrotic portions expressed in relation to the weight of the whole animal. These findings suggest that the cause of the changes in serum glycoprotein levels may be connected with some property of the tumour that was not investigated, or may even lie outside the tumour.

In the light of the various investigations outlined above, it seems likely that elevations in serum glycoproteins, or in seromucoid, are not specifically related either to tissue break-down or to tissue proliferation.

Control of Plasma Glycoprotein Levels

Another problem that has interested the writer is the question of how changes in the

glycoprotein level in the blood are brought about. The possibility that an adrenal mechanism is involved was suggested by Kelley, Kirschvink and Ely in a brief abstract.[33] However, Weimer and Redlich-Moshin,[34] who injected ACTH and cortisone separately into guinea pigs, concluded that increased secretion of these hormones is not directly responsible for the elevations of total serum glycoproteins and seromucoid found in "stress"; and Shetlar and Shetlar,[35] who gave cortisone to rats, reached a similar conclusion, since extremely large doses were required to raise the seromucoid level significantly and, moreover, such doses were found to *depress* the level of serum total glycoproteins.

The writer's experiments indicated that a single injection of 5 International Units of ACTH (lyophilized) into rabbits produces a significant rise in seromucoid and total serum glycoproteins, saline by itself having no measurable effect. However, although cortisol in very large doses was also found to raise the seromucoid level it had no effect on the level of total glycoproteins; furthermore, injection of corticosterone or deoxycorticosterone had no effect, nor did massive doses of an adrenaline-free Swingle-Pfiffner extract of adrenal gland.[36]

Although the results obtained with ACTH are not what one would expect from the work of the American investigators, the other findings referred to in the last paragraph do support them in suggesting that elevations of serum glycoproteins and seromucoid are not normally brought about by an adrenocortical mechanism.

It is appropriate to mention here the interesting observations of Engel and Catchpole[37,38] and more recently of Shetlar, Howard, Joel, Courtright and Reifenstein[39] on the effects of injecting parathyroid extract. Whether the changes in serum glycoprotein levels that occur in conditions not regarded as primarily associated with the parathyroid gland could conceivably be brought about by a parathyroid mechanism is at present not clear. Injection of a thyrotrophic hormone fraction also has been reported to produce a striking increase in serum hexosamine concentration.[40]

Role of the Liver

Many other aspects might be mentioned, but something ought to be said about the possible rôle of the liver in producing the observed changes in plasma glycoprotein levels. It has been found by Werner[7] in Upsala that rabbits whose livers have been poisoned (*e.g.*, by phosphorus) do not show a rise in serum protein-bound carbohydrate after massive bleeding as do normal rabbits. It has also been demonstrated, by L. L. Miller[41] in perfusion experiments, that the liver plays a dominant part in the production of seromucoid. Furthermore, Greenspan[12] and others have reported low seromucoid levels in patients with hepatitis or cirrhosis.

These findings lead one to suggest, tentatively, that perhaps trauma stimulates the liver to produce seromucoid, and possibly other glycoproteins also, in increased amount. How this stimulation might be brought about—whether by hormonal or nervous mechanisms—we do not know. Nor do we know whether a similar mechanism might operate in other conditions (e.g., carcinoma), or whether tissues other than the liver might contribute to the serum changes.

Conclusion

In conclusion, it is perhaps not superfluous to emphasize once more that the term "plasma glycoproteins" comprises a complex group of substances and to point out that the individual glycoproteins may well prove to have differing origins and functions in the body. For this reason the methods hitherto employed in this type of work must be regarded as relatively crude. Furthermore, the interpretation of physiologic and pathologic observations is limited by lack of exact knowledge of the chemical nature of the substances being dealt with.

Acknowledgments

The author is grateful to Professor J. Gough and Doctor A. G. Heppleston for reading the manuscript, and to Mr. B. T. Stephens for drawing most of the figures.

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ABSTRACTS

The Affinity of Heparin for Certain Liberators of Histamine

JOE M. DABNEY* and ALLAN J. STANLEY**

Texas Reports on Biology and Medicine, 18: 194-201, Summer 1960

High concentrations of histamine often occur where there is a high concentration of heparin, e.g., in mast cells. If much histamine is released from these cells by displacement, then a selective concentration of the releasing substance in these cells must be postulated. In which case, the mechanism underlying the uptake of the releaser is likely to be more complex than an affinity for heparin and must certainly be considered the basic factor leading to histamine release.

*Assistant Professor of Physiology.
**Professor of Physiology.

Vascular Responses in the Exposed Human Colon

JACK D. WELSH* and STEWART WOLF**

The American Journal of Digestive Diseases, 5: 579-602, July, 1960

Direct microscopic observations of the superficial vasculature of the human colon have been made in a patient with a colostomy. The appearance of the superficial vasculature has been correlated with estimates of blood flow as reflected by mucosal color and radiometric measurements of mucosal temperature under a variety of conditions.

1. The depth of color of the exposed mucosa was found to correlate closely with the degree of filling of the superficial mucosal vessels and with the temperature of the colostomy in terms of directional change. Although no precise quantitative correlation could be made, it appeared reasonable to assume that temperature measurement of the colostomy bud reflected change in direction of superficial blood flow.

2. The temperature of the skin of the back of the hand frequently varied inversely with colonic temperature and most consistently during the gastrocolic reflex after meals.

3. Motor activity of the colon was associated with hyperemia of the stoma, which may have been due in part to mechanical pressure.

4. The function of the colon in the subject studied appeared to be readily responsive to symbolic stimuli arising from meaningful life situations. Hyperemia and increased blood flow were noted particularly under circumstances provocative of hostile feelings. Such forces appeared to modify the effects of other stimuli, including pharmacodynamic agents.

5. Immersion of one hand in cold water was generally associated with hyperemia and increased mucosal blood flow in the colon.

6. Epinephrine induced either an initial pallor and decrease in blood flow followed by a secondary hyperemia or only a hyperemia.

7. An anticholinergic drug, Pathilon, when applied locally to the colon produced no effect. Some inhibitory effects were noted when it was administered by mouth in amounts from 75 to 150 mg. However, parenteral administration produced sustained mucosal pallor, decrease in colon temperature, and interruption of contractile activity. Predictable inhibition of the gastrocolic reflex was also observed upon parenteral injection of the Pathilon.

8. Since the usual postprandial warming of the skin failed to occur when the gastrocolic reflex was inhibited it would suggest that the skin temperature changes following a meal may be secondary to alterations of blood flow in the intestine rather than to changes in general metabolic activity.

*Instructor in Medicine.
**Professor of Medicine, Consultant Professor of Psychiatry, Neurology, and Behavioral Sciences.

Histochemical Use of the Cyanocarbon Organic Compounds

J. F. LHOTKA*

Nature 184: 1153-4 (1959)

Histochemical localizations associated with tissue protein components may be obtained in formalin fixed, paraffin processed sections treated for 2 hours in 0.5 to 2% solutions of tetracyanoethylene in tetrahydrofuran, ethyl acetate dimethylsulphoxide, or dimethylformamide. Tetracyanoethylene is a very active compound and may well have possibilities as a localizing agent in other than protein reactions.

*Associate Professor of Anatomy.

Treatment of Severe Staphylococcal Infections in Infancy and Childhood with Vancomycin

HARRIS D. RILEY, Jr.,* and NELL J. RYAN**

Antibiotics Annual, 908-916, 1959-1960

Vancomycin was employed therapeutically in the management of 25 infants and children hospitalized with serious staphylococcal infections. In view of the severity of the infections in this group of patients and the nature of their underlying illnesses, the therapeutic effects are considered significant. All strains of Staph. aureus were inhibited by vancomycin in concentrations of 5μg/ml. or less and the majority required less than 2.5μg/ml. The majority of the strains were resistant to other commonly employed antimicrobial agents. While untoward mild side effects from the drug were relatively common, particularly with earlier lots, the side effects were not serious and therapy had to be terminated in only 2 patients because of side reactions.

Vancomycin is thought to be a valuable agent in the treatment of serious staphylococcal disease.

*Professor of Pediatrics.
**Research Fellow in Cardiology.



JAMES L. DUNAGIN, M.D.



JAMES E. MAYS, Jr., M.D.



FRANKLIN NELSON, Ph.D.

Fifteen New Faculty Members

Fifteen new faculty members have assumed duties in clinical departments at the School of Medicine.

Additions to the part-time faculty include Hilliard D. Estes, M.D., director of FAA's Civil Aeromedical Research Institute. Doctor Estes was appointed consultant professor of research preventive medicine and public health. He received his M.D. degree at Harvard and an M.P.H. from the Harvard School of Public Health.

Among the new full-time staff members is Chester M. Pierce, M.D., assistant chief of the psychiatric service at the VA Hospital. He holds the appointment of assistant professor of psychiatry. Doctor Pierce, also a graduate of Harvard Medical School, came here from the University of Cincinnati College of Medicine.

Others recently appointed are:

Department of Anesthesiology—Victor R. Neal, M.D., instructor; Roland F. Crane, M.D., and Riley W. Park, M.D., clinical assistants. Doctor Neal, a full-time instructor, is a 1957 graduate of OU Medical School. He interned at St. Anthony Hospital, Oklahoma City, and returned to the Medical Center for residency training. Doctors Park and Crane are serving part-time. Both took their specialty training at the Medical Center. Doctor Park is a 1957 OU medical graduate and Doctor Crane earned his M.D. at Baylor University College of Medicine.

Department of Medicine—Robert D. Lindeman, M.D., clinical assistant. Doctor Lindeman, a 1956 graduate of Upstate Medical Center, Syracuse, N. Y., is director of Heart Disease Unit program services for the State Health Department's Division of Chronic Disease Control.

Department of Pediatrics—James L. Dunagin, M.D., and James E. Mays, Jr., M.D., instructors; Mary I. Abbott, M.D., and Nell J. Ryan, M.D., clinical assistants; David O. Childers, M.D., visiting lecturer. Doctor Dunagin, a Tulane medical graduate, is medical director of the Crippled Children's Unit, State Department of Public Welfare. He was head of the pediatric service, Charity Hospital Collaborative Child Development Program, New Orleans, before coming to Oklahoma this year.

Doctor Mays, appointed on a half-time basis, last year was chief resident in pediatrics at the OU Medical Center and chairman of the University Hospitals House Staff. A graduate of University of Tennessee Medical School, he interned at Mid-State Baptist Hospital, Nashville, before beginning residency training here.

Both Doctor Ryan and Doctor Abbott are serving full time. Doctor Ryan, from the

University of Mississippi Medical College, interned at Vanderbilt University Hospital, started residency training at the OU Medical Center and completed her advanced work at Mississippi. Doctor Abbott, an OU medical alumna, interned at Mercy Hospital and took her specialty work at the Medical Center.

The new visiting lecturer, Doctor Childers, is practicing in Shawnee. A graduate of LSU Medical School, he interned and took his residency work at Charity Hospital, New Orleans, then spent two years in the navy before moving to Oklahoma this year.

Communication disorders—Floyd W. Emanuel, a University of New Mexico graduate working toward his Ph.D. here, named supervisor of Speech Pathology Service, Speech and Hearing Center.

Department of Psychiatry—Franklin Nelson, Ph.D., instructor in medical psychology; William J. Dickerson, M.D., clinical assistant. Doctor Nelson, awarded a Ph.D. at Yale University this year, was senior clinical psychologist at Connecticut State Reformatory, Cheshire, Conn., before joining the OU medical School's new clinical psychology division. Doctor Dickerson, a 1955 OU graduate, interned at San Francisco General Hospital, studied two years at the Langley-Porter Neuro-psychiatric Institute in San Francisco. He continued his psychiatric training in London last year, spending six months in clinical neurology at the National Hospital for Nervous Diseases and six months at the Hampstead Child Therapy Clinic and Tavistock Institute. Doctor Dickerson returned to the Medical Center as chief psychiatric resident.

Department of Surgery — Preston G. Wheeler, D.D.S., clinical assistant in oral surgery. Doctor Wheeler received his degree at Baylor University School of Dentistry.

Jack Keyl, Ph.D. Will Fill Taylor Post

M. Jack Keyl, Ph.D., associate professor, has been named chairman of the Department of Physiology at the University of Oklahoma School of Medicine. Doctor Keyl, former vice-chairman, fills the departmental post left by A. N. Taylor, Ph.D., who joined A.M.A.'s Council on Medical Education and Hospitals last summer. Dr. Keyl has been a member of the faculty since 1957. He received his Ph.D. degree at the University of Cincinnati.

William Bennett Bean, M.D. To Present AOA Lecture

William Bennett Bean, M.D., professor and head of the Department of Internal Medicine, State University of Iowa College of Medicine, will give the annual Alpha Omega Alpha fall lecture at the University of Oklahoma School of Medicine.

He will speak at 4 p.m., Wednesday, November 16, in the school auditorium. Doctor Bean also will serve as a visiting professor of medicine November 16-18.

Two Instructors and One Visiting Lecturer Named

Two instructors and one visiting lecturer have been appointed to the School of Medicine faculty in recent action.

Hazel McGaffey, M.D., who came here from the Denver VA Hospital to become assistant chief of pathology at the Oklahoma City VA Hospital, was named instructor in pathology, and James Preston Bell, M.D., back from a residency at Massachusetts General Hospital, is a new instructor in orthopedic surgery. Both are part-time positions.

Doctor McGaffey was graduated from the University of Minnesota School of Medicine in 1949 and Doctor Bell is a 1952 OU medical graduate.

The visiting lecturer is C. Frank Knox, Jr., M.D., Tulsa, who will teach psychiatry. He received his M.D. at Washington University School of Medicine.

PRESIDENT'S LETTER



Thanksgiving Day, 1960, again gives us pause to reflect on our heritage and the great privilege that we enjoy living in a nation that is still truly free. We need not be overcome with emotion on this score. Quite the contrary, it now seems to me deadly serious business; the fact that we still cling stubbornly to the principles those Pilgram Fathers set up on our rugged eastern shores.

We are having lots of troubles. As doctors, we are getting pushed around a little and maybe coerced into Federal subsidies. Applicants to medical schools are falling off in numbers and in the quality of the applicants. The cost of practice is rising; the physician who keeps his overhead under 50 per cent of gross is fortunate, or else is conducting an admirably supervised business operation. There are gloomy forecasts for the medical profession, but there are also patches of blue sky ahead: Legislation passed during the last six months by the Congress has favored ever so slightly the private practice of medicine. Public opinion nationally is slanted to our own beliefs. (Ref. The Pill That Could Change America—an up-to-date review of socialized medicine in the world today, recently published by the American Medical Association.)

Here in Oklahoma I think I am in a position to tell you that we can be thankful for the brand of medicine practiced over our state. It is of the highest order.

Sincere best wishes at this Thanksgiving time.

Walter E. Brown, M.D.

WALTER E. BROWN, M.D.
President

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These two reliable agents combined as Pro-Banthīne with Dartal consistently control both disturbed mood and disordered motility when emotional disturbances project themselves through the vagus to provoke such gastrointestinal dysfunctions as gastritis, pylorospasm, peptic ulcer, spastic colon or biliary dyskinesia.

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SUPPLIED as aqua-colored, compression-coated tablets containing 15 mg. of Pro-Banthīne (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride).



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$42 Million Center Begins With a 250 Bed Hospital

Tulsa Welcomes New Saint Francis Hospital

Tulsa's $8 million Saint Francis Hospital, the impressive first phase of a projected $42 million medical center complex, was opened for use in October. During open house ceremonies, more than 20,000 northeastern Oklahomans toured the 250 bed institution, a gift to Tulsa from the William K. Warren Foundation, and went away with the unanimous feeling that Oklahoma has been blessed with one of the finest hospitals in the land.

The imposing six-story structure is built in the shape of a "Y" and architectural planning has already begun on an adjoining "Y" which will double the capacity to 500 beds. Future plans also include the establishment of a multi-million dollar research center and a $12 million shopping center west of the hospital site. Proceeds from the shopping center will augment the financial support of both the hospital and the research center.

Warren's Philanthropy

The imaginative plan is the product of the three-year-old philanthropic foundation created by oilman Warren and inspired and directed by his wife, Natalie Warren. Both Warrens are long-time Tulsa civic leaders with histories of continued community service as well as personal philanthropy.

In the articles of incorporation of the foundation, the community spirit of the Warrens is aptly reflected: "To establish and operate clinics, hospital plants and any and all other buildings for the treament of the sick, regardless of the ability to pay, and to carry on research, experiments, investigations, analyses and studies of the cause, nature, prevention and cure of diseases, deformities, functional disorders, afflictions and other conditions."

Significantly, a charter for the organization was issued on December 3, 1957, the same month and day of Warren's birthday as well as that of the hospital's namesake, the patron Saint Francis. Official dedication of the first phase, the 250 bed hospital, will continue the chronological association since it is scheduled for December 3, 1960.

Largest Gift to Catholic Sisters

The Sisters Adorers of the Most Precious Blood have tackled the "man-size" job of operating Saint Francis Hospital.

A relatively small Catholic order, the sisters have the distinction of receiving the largest gift ever made to an order of Catholic sisters in the United States. Primarily rural educators, the sisters are making their debut in the Tulsa area and, in doing so, are undertaking the management of the largest hospital presently under their direction (they also operate St. Mary's, Enid).

With provincial headquarters in Wichita, Kansas, the order directs operations in six states. It has operated in Oklahoma since before statehood.

Monument to Healing

Tulsa's towering new edifice is situated at 61st Street and Yale Avenue, high on a hill overlooking the city. Planned by noted Chicago hospital consultants, Doctor and Mrs. Herman Smith, and designed by the Chicago architectural firm of Schmidt, Garden and Erickson, each room of the new hospital has unobstructed outside exposure. From an aesthetic standpoint, the pink-granite-faced structure is perfectly complimented by the blue frame of the Tulsa sky.

Saint Francis' ground floor covers 45,870 square feet, containing the kitchen, laundry, cafeteria and dining room for 200 persons, two separate dining rooms, lockers and lounges for nurses and other personnel, the morgue and autopsy room, and mechanical and housekeeping facilities.

A unique feature of the hospital's food service is the electrically heated and refrigerated food cart system which keeps foods hot and cold during transportation from the

kitchen to the patients. Hospital corridors are generously equipped with electrical wall receptacles to supply power for the carts.

1st Floor Surgery

An expansive suite of six operating rooms are in the Saint Francis general surgery department on the 54,340 square foot first floor. Also, two emergency surgeries are situated in the emergency receiving department of the same floor.

This innovation not only makes it more convenient to transfer patients from emergency room to surgery, but also makes experienced surgeons available for consultation with residents and interns staffing the emergency section.

Other features of the first floor include: recovery room, fully equipped radiology department; laboratory and pathology department; central supply and formula room; pharmacy; coffee bar; gift shop; library; conference rooms; administrative offices; a medical records room; waiting rooms; non-denominational meditation rooms; and, a doctors' lounge.

Physicians are particularly proud of the convenience and efficiency of the centralized clinical services on the first floor.

Obstetrical Department

The second floor contains the obstetrical department with four combination labor and delivery rooms, and an additional six beds in labor rooms. Three nurseries and a separate nursery for premature babies can accommodate fifty-four babies at a time.

Unique examination stations adjoining the nurseries permit doctors to check the babies without entering the nursery itself. The physician asks a nursery attendant to pass the child through a sliding glass covered-pass-through into the examination room. The system allows eight babies to be checked simultaneously.

The remainder of the floor accommodates approximately sixty maternity and gynecological patients.

General surgery, psychiatric and medical patients will be housed on the third and fourth floors and a portion of the fifth. Pediatric cases are also cared for on the fifth floor.

The beautiful, contemporary decor of Saint Francis Hospital is illustrated in this view of the spacious lobby. A portrait of the William K. Warrens decorates the lounge area. The information desk appears at the left.



Suites Available

Each floor has a seminar and conference room, flower room, storage and utility rooms, and day rooms for convalescents.

About fifty per cent of the patient rooms are private and the balance semi-private, (there are no wards). Each has private toilet facilities and the maternity areas, as well as some of the private rooms, are equipped with baths.

Two room suites are available on each floor caring for adult patients.

Other Features

Among other unique features incorporated into the planning of the hospital are: a 200 seat chapel; a convent which houses 44 sisters; a pneumatic tube message system between nurses' stations; two-way communications between patients' rooms and nursing station; electrically controlled beds; remote control television, recorded music or radio, with selector controls built in the pillow speaker; closed circuit TV between lobby and nursery, where youngsters may view their baby brothers and sisters; a central vacuum system piped to each room; and continuous oxygen supply throughout the hospital.

Physicians will check out pocket transistor radios as they enter the hospital, and thus may be paged without disturbing patients.

Key Personnel

Three persons will assume primary responsibility for the administrative management of the hospital. They are: Sister Mary Hildalita, Administrator; Sister Mary Marcellina, Sister Superior of the convent and Supervisor of Surgery; and, Elmer C. Bene, Assistant Administrator and Personnel Manager.

The thirteen man Board of Directors includes three Tulsa physicians: Wilkie D. Hoover, M.D., Felix R. Park, M.D., and, William O. Smith, M.D.

Elected as President of the medical staff is Carl Lindstrom, M.D. The following are named as heads of departments: Robert G. Tompkins, M.D., *Medicine;* James B. Thompson, M.D., *Surgery;* John F. Fitzgibbons, M.D., *Pathology;* Walter E. Brown, M.D., and D. Reid Tickle, M.D., *Radiology;* and Howard A. Bennett, M.D., *Anesthesia.*

Top Scientific Program Planned for MDs at A.M.A. Clinical Meeting

The 14th clinical meeting of the American Medical Association in Washington, D.C., November 28-December 1, will offer a well-rounded, stimulating scientific program designed to interest both family physicians and specialists. The symposia, presentations, and discussions will stress the theme, "New Developments in Old Diseases and Old Developments in New Diseases."

Participants will include proponents of both sides where different views exist on the management of a disease or medical condition. For example, should tonsils be removed when mildly involved or only when they are badly diseased?

The patient's side will also be heard on one symposium. Clarence B. Randall, an industrialist and special assistant to President Eisenhower, will talk on coronary disease from the patient's viewpoint. Other participants and their topics on this panel are:

A. Carlton Ernstene, Moderator, Cleveland, Ohio;

Thomas W. Mattingly, Washington, D. C., Can Coronary Patients be Predicted by Clinical or Physiologic Measurements?;

Donald S. Fredrickson, Bethesda, Maryland, Fat Metabolism as a Background to the Development of Coronary Atherosclerotic Disease;

Victor A. McKusick, Baltimore, Maryland, Genetic Background of Patients with Coronary Vascular Disease;

Eugene A. Stead, Jr., Durham, North Carolina, Management of the Dietary and Psychologic Problems of the Patient with Coronary Disease.

The Problem of Management of Nodules, always perplexing for both the specialist and the family physician, will be discussed by three panels concerned with breast nodules, the solitary pulmonary nodule, and nodules of the neck.

Another panel will discuss Recent Advances of the Use of Antibiotics and Steroids, and additional symposia will cover areas in obstetrics-gynecology, pediatrics,



Washington, D. C., the nation's capital, will also be the capital of American medicine November 28-December 1 during the 14th Clinical Meeting of the American Medical Association. Hundreds of scientific and industrial exhibits, symposiums, lectures, and group discussions have been scheduled to appeal to the physician in family practice. Headquarters will be in the Sheraton-Park Hotel and most scientific activities will be held in the National Guard Armory.

edema, cirrhosis and liver diseases, renal problems, osteoporosis, thyrotoxicosis, eye problems, orthopedic surgery and trauma, clinical nutrition and bronchopulmonic disease.

Outstanding physicians and research scientists from throughout the nation will conduct the scientific program, and the timetable of discussions has been arranged so that physicians may attend the maximum number of sessions and participate in discussions in the particular fields in which they are most interested.

All the scientific sessions will be held at the District of Columbia National Guard Armory. Starting at 9:30 a.m., Monday, November 28, and running until 11:30 a.m., Thursday, December 1, three sections in both morning and afternoon will be held simultaneously in separate rooms at the Armory. One section will be devoted to presentations of formal papers, another to panel discussions, and the third will be a symposium, all of which have question-and-answer periods.

Another important and integral part of the clinical meeting will be the Scientific Exhibit which will contain approximately 125 exhibits in the Armory. Many of these will relate to such specific subjects as cardiovascular conditions, arthritis and rheumatism, and cancer. Others will be grouped into rather broad areas such as neurology and psychiatry, pediatrics, orthopedics, dermatology, drug therapy, surgery, ophthalmology and otolaryngology, obstetrics and gynecology, and laboratory and clinical investigation. Special demonstration exhibits on Fractures and Problems in Delivery will also be included.

Over 100 exhibits will make up the Industrial Exhibition, also in the Armory, where the products, services, and aids provided by industry to physicians and their patients will be on display and staffed by competent and knowledgeable attendants.

Medical motion pictures will be shown at the Armory, as well as closed color television showings originating in Georgetown University Hospital. Six one-hour TV presentations will be devoted to dermatology, pediatrics, emergency treatment of major injuries, newer methods of surgical treatment of peptic ulcer, orthopedics and pathology.

Three scientific breakfasts will be held on both Tuesday and Wednesday at the Statler Hotel with the themes of "To Do or Not To Do" and "Problems of Management" in particular diseases or types of cases.

The entire scientific program of the Clinical meeting appears in the October 22 issue of the Journal of the American Medical Association.

Welfare Medical Program Expanded to Cover 'Near Needy'

On October 19, the Oklahoma Public Welfare Commission revealed tentative plans for the implementation of a medical care program for persons over age 65 who qualify as 'near-needy.'

Recent federal legislation, H.R. 12580—the "Kerr Bill," authorized the Department of Health, Education and Welfare to assist states in setting up health care programs on a federal-state matching fund basis. The legislation not only permits the broadening of medical benefits to beneficiaries of public assistance, but also provides financial relief to those elderly who are not on assistance roles, but who are unable to meet the costs of illness out of their own resources (the near-needy).

Previously, the Commission had announced expanded benefits under the *welfare* medical assistance program, but had deferred launching the program for the 'near-needy' until a means test could be developed which would keep the number of eligible persons within the financial capability of the Department of Public Welfare. The *welfare* medical assistance program, which went into effect on October 1st, was reported in detail in the October issue of the *Journal* of the Oklahoma State Medical Association.

Benefits

Aged persons qualifying for the 'near-needy' program will receive most of the *in-patient* health care benefits available to public assistance recipients.

Originally, it was intended to offer the 'near-needy' the same in-patient benefits (general hospital, convalescent hospital, nursing home) and out-patient benefits (emergency care in hospital or doctor's office, certain home visits, out-patient therapeutic radiology, home nursing care, etc.) as will be enjoyed by those on relief rolls. Now, it appears that financial limitations will prevent such across-the-board duplication of benefits.

The 'near-needy' will receive in-patient care in a general hospital, in-patient care in a convalescent hospital, emergency care in a hospital emergency room or doctor's office, and a limited amount of nursing care in the home, following discharge from a hospital.

In-patient medical care in a *licensed general hospital* is authorized for *twenty-one* days for any one admission, provided the care is rendered for life or sight endangering illness. Hospitals will receive per diem costs up to $20.93 per day and physicians will receive 75% of the currently recognized Medicare Schedule of Allowances for surgery, anesthesiology, pathology and therapeutic radiology (malignant diseases only). For medical services, physicians will be paid at the rate of $5 per day for not more than fifteen days of any one admission.

Convalescent care in a *convalescent hospital* or in a *convalescent facility* of a *general hospital* is authorized for a maximum period of thirty-one days per admission. Hospitals will receive a maximum of $10.47 per day for such care, and physicians will be paid at the rate of $5.00 per visit (one visit per day) up to a maximum of ten visits per admission.

Acute injury cases may be cared for in a licensed general hospital, or a physician's office. In addition to receiving payment for professional services at the regular rate, $15 is allowed for x-ray services and $7.50 for laboratory procedures.

Upon a physician's prescription, nursing care will be provided in the home following hospital discharge, up to the necessary length of time as specified by the physician.

The 'near-needy' group will not initially be offered nursing home care nor some of the out-patient benefits available to pensioners.

Eligibility Requirements

According to Lloyd Rader, Director of the Department of Public Welfare, there is no specific method of determining the exact number of persons who will qualify for the 'near-needy' care, although estimates set the number at about 15,000 people, slightly more than 10% of the over-65 population who are not on public relief.

Standards of eligibility adopted by the Welfare Commission allow a single person to have an $8,000 equity in a home, a $1,000 life insurance policy, a $1,500 equity in tools-of-trade, a $2,500 equity in a business and a $700 equity in all forms of reserve property. Couples have the same limitations of equity, except they may have a $2,000 life insurance policy and a $1,000 equity in all forms of reserve property.

The single person who owns his own home may earn up to $924 annually and still qualify; a man and wife who are homeowners may have a joint income of $1,560. A single renter would be allowed $1,188 in exempt income, while a couple could earn up to $1,824. The above income figures for renters are the maximum allowable, authorized only if at least $30 per month is paid in rent.

Requirements also provide that persons must not have transferred property within the last five years for the purposes of qualifying for medical assistance. However, unlike the established welfare policies, there are no residency requirements other than the person must reside in the state at the time of application for financial help.

Hospitals Will Have Forms

Only persons already in the hospital will be able to apply for 'near-needy' medical assistance. Application forms and affidavits will be sent to the hospitals, who will help the needy persons apply for assistance. The completed forms will be sent to the state welfare office where they will be analyzed by a review team prior to approval.

$6 Million Program

A $6,105,000 annual budget has been approved for the 'near-needy' program, $2,200,000 of which will be state funds. State funds will be deposited in a revolving fund, from which medical bills will be paid, then matched at 67.54% by the federal government.

In addition to the $6 million 'near-needy' program, approximately $20 million will be spent annually to provide health care for public pensioners.

Medical Director Named for Rehab

A. D. Robertson, M.D., has been named medical director of the Rehabilitation Center at Oklahoma State Tech, Okmulgee, succeeding Doctor Shelby Gamble. Doctor Robertson assumed medical and administrative duties in Okmulgee on November 1, and will spend full time working with the Rehabilitation Center.

During the past 25 years, Doctor Robertson has been engaged in general practice of medicine in Ohio.

Born in Illinois, Doctor Robertson received his bachelors degree from Ohio Wesleyan University and his medical degree from the University of Michigan Medical School.

During World War II he served with the Air Force with the rank of Major. There he was closely associated with Doctor Howard A. Rush in the development of Convalescent and Rehabilitative services.

In June 1958, he served a fellowship in Physical Medicine and Rehabilitation in New York.

At Oklahoma Tech he will be responsible for administration of the center, medical evaluation of each patient admitted to the center, prescribe all therapy and medication for the patients, re-evaluate patients periodically and recommend when the patient is ready for discharge or vocational training.

For the past year, Doctor Robertson has been associated with the Terrell Medical Group in Ft. Worth, Texas where he has served as director of the Department of Physical Medicine at All Saints Episcopal Hospital. He also has been serving on the Board of Goodwill Industries, Inc., the Board of Multiple Sclerosis and the Board of Cerebral Palsy. He has also been serving in the capacity of consultant to St. Joseph's Hospital and Arlington Memorial Hospital.

OSMA Plans SAMA Banquet

"The Annual Fall banquet sponsored by the Oklahoma State Medical Association is the highlight of our organizational activities each year," said Rex Baggett, President of the University of Oklahoma Chapter of the Student American Medical Association.

He was discussing details of the 1960 banquet with OSMA President Walter E. Brown, M.D.

The event is planned for 7:30 p.m., November 18 in the banquet room of the Oklahoma Home Builders Association, located adjacent to the headquarters building of the medical association in Oklahoma City. Members of the student organization, their wives and the officers, councilors and preceptors of the OSMA will attend the dinner, which has become a traditional mixer between representatives of organized medicine and their future colleagues.

Principle speaker for the evening will be William Bennett Bean, M.D., Professor of Medicine and Head of the Department of Internal Medicine, State University of Iowa School of Medicine.

Doctor Bean, an experienced and popular speaker, will also present the Alpha Omega Alpha Fall Lecture on November 16, prior to his appearance before the SAMA.

Two AMA Officials Visit Oklahoma

Oliver Field, Director of the American Medical Association's Bureau of Investigation, and Fred V. Hein, Ph.D., of the Bureau of Health Education, appeared before Oklahoma audiences during the month of October.

Mr. Field, long-time investigator of medical quackery, journeyed to Stillwater, Oklahoma on October 19, where he addressed nearly 2,000 coeds from the Physical Education classes of Oklahoma State University.

Doctor Hein, a health education specialist, presented two lectures at the annual meeting of the Oklahoma Education Association, held in Oklahoma City, October 27th.

White House Conference on Aging Set for January

Three thousand delegates to the White House Conference on Aging will assemble in Washington, D. C., January 9-12, 1961, to discuss and make recommendations to the President on key problem areas facing America's senior citizens. The purpose of the national meeting will be to consolidate recommendations made at some fifty state conferences which preceded it.

Background

A product of the 85th Congress, Public Law 85-908 authorized the conference, declaring " . . . that the Federal Government shall work jointly with the states and their citizens to develop recommendations and plans for action . . . " which will serve the purposes of:

"1. Assuring middle-aged and older persons equal opportunity with others to engage in gainful employment which they are capable of performing, thereby gaining for our economy the benefits of their skills, experience and productive capacities; and

"2. Enabling retired persons to enjoy income sufficient for health and for participation in family and community life as self-respecting citizens; and

"3. Providing housing suited to the needs of older persons and at prices they can afford to pay; and

"4. Assisting middle-aged and older persons to make preparation, develop skills and interests, and find social contacts which will make the gift of added years of life a period of reward and satisfaction, and avoid unnecessary social costs of premature deterioration and disability; and

"5. Stepping up research designed to relieve old age of its burden of sickness, mental breakdown, and social ostracism."

Recommendations evolving from the conference are required by law to be transmitted to the President within ninety days.

The legislation also authorized the appropriation of sufficient funds to provide 15,000 grants to the states to help them finance the collection of facts and conduct

conferences in advance of the national meeting in 1961.

The Oklahoma Conference

With the passage of the enabling legislation, the Oklahoma State Medical Association's Committee on Aging, under the direction of Hayden H. Donahue, M.D., suggested to Governor Edmondson that an Oklahoma White House Conference on Aging be conducted under the auspices of the Extension Division of the University of Oklahoma. The Governor complied with the request and made application for a $15,000 Federal grant, naming Oklahoma University's President George Cross as General Chairman.

Mr. David Steen, from the Extension Division Staff, was appointed as project coordinator and a statewide study was launched. The general plan was to use fourteen fact-finding committees and "mayors' committees" to uncover information and make recommendations to the state conference in Norman, June 7, 8, and 9, 1960. From the state conference, recommendations would be determined for subsequent transmission to the national meeting.

In keeping with the proposed format of the national meeting, Oklahoma's fact-finding committees were assigned the following subjects: Population Background; Social Services; Mental Health; Public Library Services; Rehabilitation; Research, Training and Demonstration; Education; Local Community Organization; Income Maintenance; Housing Needs of Older People; Health; Nursing Homes and Homes for the Aged; Employment; and, Recreation.

Physicians Play Prominent Roles

More than sixty Oklahoma physicians, as well as many members of the Woman's Auxiliary, participated in various areas of the pre-conference activities, and during the meeting itself. Serving in key positions were: OSMA President Alfred T. Baker, M.D., a member of the Governor's Committee; John DeVore, M.D., Chairman of all fourteen Fact-Finding Committees; J. Walker Morledge, M.D., Chairman of the Fact-Finding Committee on Health; and Lee Honska, M.D., Chairman of the Committee on Research, Training and Demonstration. Other physicians participated as members of various fact-finding committees, as well as on more than thirty mayors' committees.

Significant among the physicians' activities was the work done by John F. Burton, M.D., Chairman of the Sub-Committee on Financing Health Care. The financial ability of aged persons was surveyed and it was recommended that the financing of health care for senior citizens should be accomplished through voluntary means rather than through the popularly-proposed system of using the Social Security mechanism.

400 Attend

Held at Oklahoma University's Student Union Building, the conference attracted some four hundred Oklahomans. Fifty-one recommendations were approved as Oklahoma's contributions to the national meeting (the recommendations appear in full in the July, 1960 issue of the OSMA *Journal*).

Medicine was well represented at the meeting, with approximately thirty physicians and auxiliary members present.

Conference recommendations were approved without incident until it was proposed that "consideration be given to the use of the Social Security system to finance health care for the aged." Physicians dominated the lengthy debate which followed, and were successful in having this measure voted down by the conference. Thus, Oklahoma delegates to the national conference are bound to uphold voluntary enterprise, and community and state action as the mechanisms of choice to solve the health care financing problems of the aged.

National Delegates

In the breakdown of national delegates, 1,740 of the total 3,000 will represent states. The remainder will include representatives of national organization, and Federal departments and agencies. States will be allocated delegates on the basis of population, with no state receiving less than ten.

Oklahoma's delegation, twenty-four strong, was selected by the Governor. They are: J. W. McGann, Oklahoma City; Raymond Crews, Oklahoma City; Arthur Truex, Tulsa; Alfred T. Baker, M.D., Durant; John De-

Vore, M.D., Oklahoma City; Kirk T. Mosely, M.D., Oklahoma City; Malcom White, Oklahoma City; Mrs. S. C. Williams, Hugo; Mrs. Marie Detty, Lawton; Mrs. O. S. Boyd, Norman; Fannie Lou Leney, M.D., Oklahoma City; Kate Frank, Muskogee; Joe Timken, Ph.D., Norman; Virginia Owens, Oklahoma City; Leta Moore, Stillwater; Harry Cooley, Bethany; Elbert Whitwell, Edmond; Richard Burgtorf, M.D., Shattuck; Vernon Snowbarger, D.D., Bethany; C. R. Ellsworth, Lawton; Joe Stowe, D.D., Durant; Wynetka Armor, Oklahoma City; Representative Tom Stevens, Shawnee; and one state senator to be named.

Significance of Conference

Since the original intent of the legislation was to provide the President with "grass roots" recommendations designed to lessen the burdens of the nation's elderly, it is reasonable to assume that at least some of these proposals will require the passage of new legislation.

Although Oklahoma's Conference made conservative recommendations in regard to proposing further Federal action, reports from other state meetings indicate to the contrary. Thus, conservative-minded delegates to the national meeting will have their work cut out for them, if they are to keep part of the problems of aging for local and state solution.

The make-up and attitude of both national legislative houses and the Administration will also have bearing on the final fruits of the year-long study of the status of the old folks.

Something Ventured—Something Gained

In the past, postgraduate education has consisted largely of the dissemination of information. This has traditionally been accomplished through the use of the lecture system. Except for its ease and low cost, the lecture plan has little to recommend it. Certainly, all educators and all audiences, tortured by long hours and hard backed chairs in a darkened room, both agree that the lecture is a poor device to integrate new knowledge and concepts.

On December 15, 16, and 17, the postgraduate division, University of Oklahoma Medical School and the Oklahoma State Medical Association, embarked on a conjoint effort with a new approach to postgraduate education. *No lectures* will be given. The registrants will be divided into small groups. Each group will meet with a guest consultant and a moderator from the local faculty. The sessions will be informal, round-table discussions and presentation of illustrative problem cases. Five topics will be covered. Each registrant will spend one-half day on each topic. The registrants will have an opportunity to ask questions on problems of concern to them.

The topics to be discussed are: The Use of Antibiotics; The Acute Abdomen; The Use and Abuse of Laboratory Tests; Office Management of the Nervous Patient; and Problems of Fluid and Electrolyte Balance.

The course has appropriately been named "Consultations on Problems in Practice." The guest consultants are: David T. Graham, M.D., Associate Professor of Medicine, University of Wisconsin; Ben I. Heller, M.D., Professor of Medicine, Marquette University, Chief of Medicine, VA Hospital, Milwaukee; Marshall J. Orloff, M.D., Assistant Professor of Surgery, University of Colorado; Leslie Zieve, M.D., Associate Professor of Medicine, University of Minnesota, Chief of Radioisotope Service, VA Hospital, Minneapolis; and, David E. Rogers, M.D., Professor and Chairman, Department of Medicine, Vanderbilt University.

The details about enrolling have already been mailed to all physicians. If you wish further information, write to: Office of Postgraduate Education, University of Oklahoma Medical Center, Oklahoma City 4, Oklahoma.

Since the enrollment will be limited, early and advanced registration is necessary.

The results of this venture will be of interest to educators and physicians in other states as well as in Oklahoma. Both the faculty and the students in this course will be pioneers in what may well be a new era in postgraduate medical education.

Thirteen Oklahomans Join College of Surgeons

Approximately 1,175 surgeons, including thirteen Oklahomans, were inducted on October 14 as new Fellows of the American College of Surgeons in cap-and-gown ceremonies closing the annual five-day Clinical Congress of the world's largest organization of surgeons. The A.C.S., founded in 1913 to establish standards of competency and character for specialists in surgery, has grown in 47 years' time from a founding group of 450 to a total membership of approximately 24,000.

Those receiving this distinction from the State of Oklahoma at the 1960 Convocation are as follows: Duane A. Barnett, M.D., Ponca City; Karl K. Boatman, M.D., Oklahoma City; Leonard H. Brown, M.D., Oklahoma City; Paul D. Erwin, M.D., Oklahoma City; Warren L. Felton, II, M.D., Oklahoma City; Glen Floyd, M.D., Bartlesville; Jed E. Goldberg, M.D., Tulsa; John T. Hicks, Jr., M.D., Lawton; Gilbert L. Hyroop, M.D., Oklahoma City; Rene B. Menguy, M.D., Oklahoma City; William A. Miller, M.D., Oklahoma City; Louis E. Speed, M.D., Oklahoma City; and, Charles A. Tollett, M.D., Oklahoma City.

American College of Surgeons Will Meet in Mexico City

Development in surgical techniques will be discussed by leading surgeons of Mexico, Canada and the United States at the first meeting of the American College of Surgeons to be held in Mexico. Dates are January 23 through 26, 1961, with headquarters at the following Mexico City hotels: Del Prado, Vista Hermosa, El Presidente, Alffer, and Continental Hilton.

All members of the medical profession are invited to attend this meeting. An intensive program, including clinics, panel discussions, medical motion pictures, symposia and reports on many important subjects, as well as a special program at University City have been planned.

The following guests have been requested to speak before the assembly: Clayton Crosby, M.D., Regina, Saskatchewan, Canada; E. Ramirez Lopez, M.D., Mexico City; William P. Longmire, Jr., M.D., Los Angeles;

I. S. Ravdin, M.D., Philadelphia; R. Lee Clark, Jr., M.D., Houston, Texas; Anthony R. Curreri, M.D., Madison, Wisconsin; Jose Noriego Limon, M.D., Mexico City; James T. Priestley, M.D., Rochester, Minnesota;

Leonard D. Heaton, M.D., Washington, D.C.; Nicholas Wetzel, M.D., Chicago, Illinois; Ignacio Chavez, M.D., Guadalajara; Owen H. Wangensteen, M.D., Minneapolis, Minnesota; James D. Hardy, M.D., Jackson, Mississippi; L. Kraeer Ferguson, M.D., Philadelphia; Guillermo Alamilla Gutierrez, M.D., Mexico City; Jorge Solis, M.D., Mexico City; Manuel Guijano, M.D., Mexico City;

Carlos D. Guerrero, M.D., Mexico City; Alfonso Topete, M.D., Guadalajara; James Barrett Brown, M.D., St. Louis; Loyal Davis, M.D., Chicago; Robert R. Shaw, M.D., Dallas, Texas; and Michael E. DeBakey, M.D., Houston, Texas.

Speaking at the special afternoon session to be held at University City will be: Eduardo Echeverria, M.D., Alejandro Castanedo, M.D., Conrado Zuckermann, M.D., Enrique Sanchez Palomera, M.D., Reyes Tomayo Ochoa, M.D., and Patricio Beltran Goni, M.D., all of Mexico City.

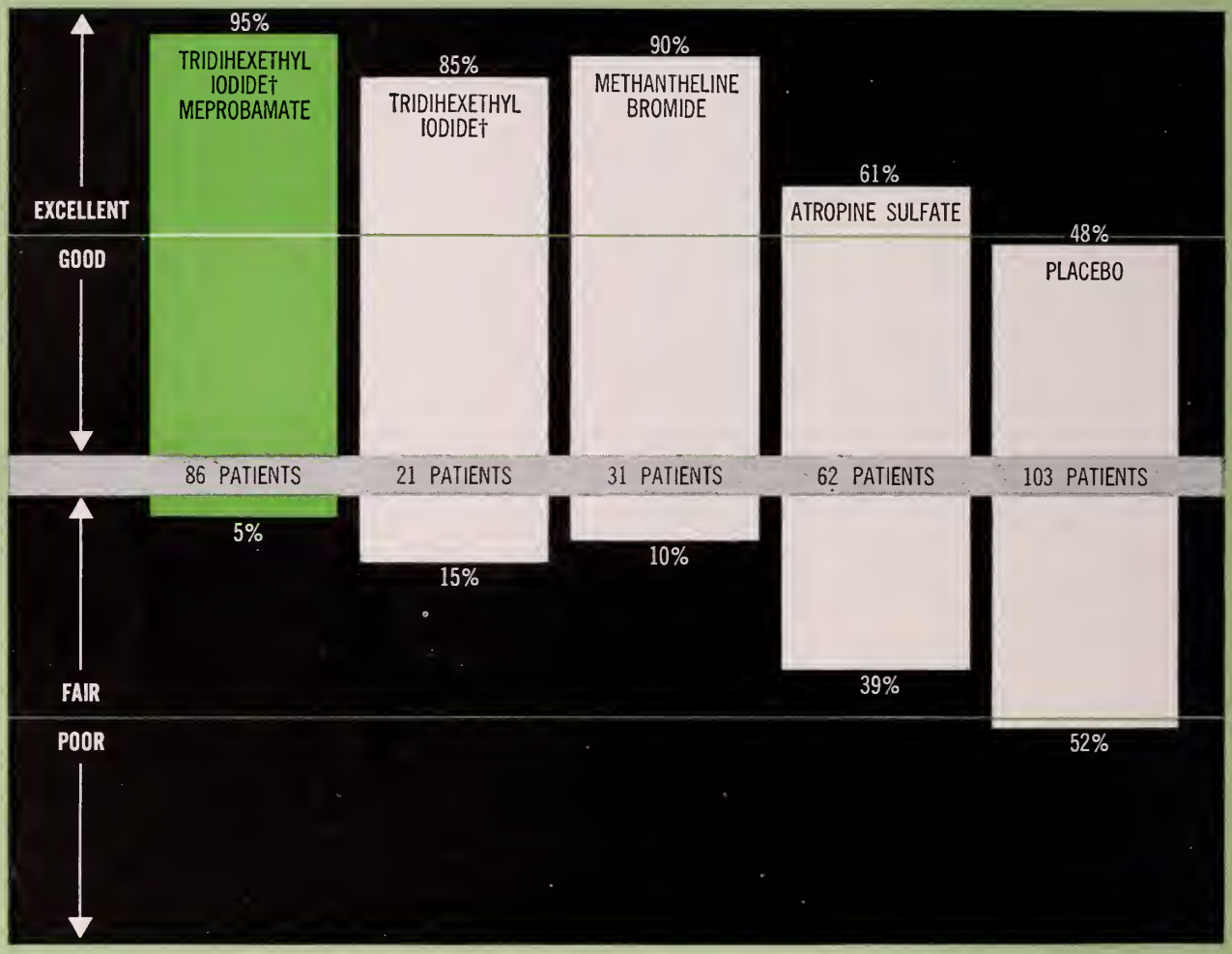
Leading the "How I Do It" clinics will be: Kenneth C. Johnston, M.D., Chicago; Robert M. Zollinger, M.D., Columbus, Ohio; David P. Boyd, M.D., Boston; William E. Adams, M.D., Chicago; Claude E. Welch, M.D., Boston; Henry N. Harkins, M.D., Seattle; and Delfino Gallo, M.D., Guadalajara.

Following the clinics, scientific reports will be presented by: Clemente Robles Castillo, Mexico City; Alton Ochsner, M.D., New Orleans; Colin C. Ferguson, M.D., Winnipeg, Canada; Angus D. McLachlin, London, Ontario; H. Rocke Robertson, M.D., Montreal, Canada; Eduardo Castro, Mexico City; Jesus Lozoya-Solis, Mexico City; and Nicholas Giannestras, Cincinnati.

Additional information may be obtained from William E. Adams, M.D., Secretary, American College of Surgeons, 40 East Erie Street, Chicago 11, Illinois.

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DRY MOUTH	1%	5%	72%	46%	5%
STOMATITIS	1%	0%	28%	14%	0%
VISUAL DISTURBANCES	0%	0%	50%	34%	1%
URINARY RETENTION	0%	0%	18%	11%	1%
DROWSINESS	20%	0%	0%	0%	0%
COMPLICATIONS OR SURGERY					
HEMORRHAGE	0%	9%	3%	9%	10%
PERFORATION	0%	0%	0%	6%	0%
OPERATION	0%	5%	5%	14%	2%
RECURRENCES					
NONE	28%	23%	25%	17%	26%
FEWER AND MILDER	67%	62%	52%	37%	24%
SAME OR MORE	5%	15%	23%	46%	50%

*Atwater, J. S., and Carson, J. M.: Therapeutic Principles in Management of Peptic Ulcer. **Am. J. Digest. Dis.** 4:1055 (Dec.) 1959.

†PATHILON is now supplied as tridihexethyl chloride instead of the iodide, an advantage permitting wider use, since the latter could distort the results of certain thyroid function tests.

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National Foundation Offers 500 Health Scholarships

For the third straight year, the National Foundation, through its Health Scholarships Program, will offer five hundred four-year scholarships in the fields of nursing, occupational therapy, physical therapy, medical social work and medicine.

The purpose of the program, supported by the March of Dimes, is twofold. First, deserving students interested in careers in the understaffed health professions will be given financial aid to help complete their educational preparation for these professions. Secondly, this investment in human resources will help alleviate serious shortages of personnel, and thus assure more adequate care for patients.

Health Scholarships are $500 per year, renewable annually. They are apportioned geographically in each of the fifty states, the District of Columbia, Puerto Rico, the Virgin Islands, and, the Canal Zone. Each state (including Oklahoma) offers at least five scholarships, one for each profession; in the larger states twenty-five scholarships, five in each health field, are available.

Eligibility

All applicants must be citizens of the United States or the other specified territories. *Nursing, occupational therapy* and *physical therapy* applicants must be high school seniors who will graduate between January and July of 1961, and who plan to enter a regionally accredited college in the fall of 1961. They must also be eligible for a baccalaureate degree upon completion of professional training.

Medical social work applicants must be college sophomores who will enter the junior class in 1961 and who are planning two years of graduate work in an approved graduate professional school of social work following completion of the baccalaureate program.

For a scholarship to study *medicine*, the applicant must be a *college undergraduate* accepted by an AMA-approved school of medicine in the United States for admission in the fall of 1961. Students already possessing baccalaureate degrees or those already in medical school are ineligible.

Selection Procedures

Credentials of Health Scholarships applicants are reviewed on a competitive basis in each of the states and territories by a Health Scholarship Selection Committee. This committee is composed of one local representative from each of the five health professions included in the program. Criteria are: scholastic achievement, personal qualifications, professional promise and financial need.

The winners are under no obligation to the National Foundation; their sole responsibility is to complete their education and serve their chosen health field.

Application forms and detailed information may be obtained from highschools and colleges, from the National Foundation chapters at county and state levels, and from the National Foundation, 800 Second Ave., New York 17, New York. Applications and required credentials must be mailed to the New York office by April 1, 1961.

Clinic Leader Proposes "Regulated" Health Insurance and Group Practice As Health Care Utopia

Speaking under the title "Render Unto Caesar," Russell V. Lee, M.D., in his presidential address to the American Association of Medical Clinics, appealed to the medical profession and governmental agencies at all levels to work together as a team, "to meet the great and urgent challenge" of delivering adequate medical care to all Americans. The Association held its 11th Annual Meeting at the Roosevelt Hotel in New Orleans, October 6-8.

In reference to government's role in the health field, Doctor Lee declared, "Access to health services of high quality is a fundamental right which government must guarantee if the individual is unable to do so." He emphasized, however, that individual initiative is the most important single element in achieving optimum health care and recommended an intensive health education campaign "to make America the best educated nation in matters of health."

More specifically in regard to the balance of power between government and private practice, Doctor Lee had this to say: "Pri-

vate means should be utilized for the provision of these (medical) services and public means should be used for their payment when this is an obligation of the government."

To achieve this arrangement, he proposed that the government should purchase prepaid plans for groups of people for whose medical care government is responsible, such as veterans, military dependents, the indigent and the mentally ill. Before doing so, however, it would first be necessary to eliminate the inadequacies of many health insurance plans. Doctor Lee suggested the creation of a "Federal Health Insurance Commission," similar to the I.C.C., F.T.C., and other regulatory commissions, to set up criteria for acceptable health insurance plans and perhaps to design ideal policies.

Such a system, he said, "will give the private practice of medicine a tremendous boost and will improve the quality of medical care."

"Group practice," Doctor Lee continued, "provides the most efficient and most closely quality-controlled device for medical care. . . . It is my firm belief that the only hope for the avoidance of governmental medicine lies in the great extension of group practice combined with direct prepayment plans."

"It is possible to work out a solution . . . that does not involve governmental control. We can be a veritable medical Utopia and we should achieve it. We should make sure that no one dies prematurely, that no one suffers unnecessarily, that no one is denied access, because of a price he cannot pay, to medical services of the highest quality."

In other remarks, Doctor Lee stressed the need of government participation in meeting "an acute shortage of doctors, nurses and technicians of all kinds." He proposed Federal grants for medical school buildings and equipment, grants to supplement salaries of medical school teachers, and scholarships.

In the medical research field, he urged that every town of 25,000 or more have a medical research institute, "so that any doctor who has a bright idea, even though in practice, may have a chance to implement it." He further proposed that public health services be strengthened at every level.

OU Doctors Find New Drug Helps Elderly

Oklahoma City doctors believe they may have a partial answer to the question of how to keep elderly people from wasting away.

It is "19-nortestosterone phenylproprionate," sometimes shortened to "nondrolone phenylproprionate," which has been developed in Europe.

Doctor Philip Johnson, until recently chief of the radioisotope service at the Oklahoma City Veterans Administration hospital and an associate professor of medicine at the University of Oklahoma Medical School, said the new drug seems to be quite helpful to geriatric patients who chronically suffer from loss of weight, atrophied muscles, and poor appetite.

Doctor Johnson is now on the staff of Methodist Hospital in Houston, Texas.

Studies completed by Doctor Johnson, Doctor Mervin Clark, chief of the medical service at Central State Hospital, Norman, Oklahoma, and Doctor Carl W. Smith, assistant chief of medical service at Central State Hospital, show the new drug to be useful in the building of muscle, gaining of weight and improving of nutritional status.

Selected for the study were 48 women at Central State Hospital, Norman. The women ranged in age from 50 to 94. All were 20 per cent or more below their ideal weight.

Nandrolone phenylproprionate was given to one group of 12 for four weeks, to a second group of 12 for eight weeks, and to a third group of 12 for 12 weeks. A fourth group received no shots.

The women given the drug four weeks gained an average of 4½ pounds; the groups receiving the drug for longer periods gained from 9 to 10 pounds. Those who received the drug, Doctor Johnson said, "had increased appetite and a general sense of well being."

No evidence of damage to the blood, the liver or other vital organs, which were checked carefully at intervals throughout the study, was found.

Medical History of W.W. II Published by Army Historical Unit

Under the direction of the Surgeon General of the Army, the Historical Unit of the U. S. Army Medical Service is publishing a series of forty-eight volumes entitled, "History of the Medical Department, U. S. Army, in World War II." Of the total volumes programmed for the series, fifteen are now published and ready for purchase from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

According to Lieutenant General Leonard D. Heaton, the Army Surgeon General, many of the medical lessons learned in World War I had to be relearned under fire during World War II because of paucity of distribution of the history of the first war. The preparation, publication and distribution of information on the second war is designed to prevent a *similar* occurrence in the event of another war.

Volumes now available are:

"General Surgery," edited by Michael E. DeBakey, M.D. ($4.25).

"Neurosurgery," Volume I (Head Injuries), edited by R. Glen Spurling, M.D. and Barnes Woodhall, M.D. ($5.00).

"Neurosurgery," Volume II (Spinal Cord and Peripheral Nerve Injuries), edited by R. Glen Spurling, M.D. and Barnes Woodhall, M.D. ($7.00).

"Hand Surgery," edited by Sterling Bunnell, M.D. ($3.75).

"Ophthalmology and Otolaryngology," edited by M. Elliott Randolph, M.D. and Norton Canfield, M.D. ($5.00).

"Orthopedic Surgery, European Theater of Operations," edited by Mather Cleveland, M.D. ($4.00).

"Orthopedic Surgery, Mediterranean Theater of Operations," by Oscar P. Hampton, M.D. ($4.00).

"Physiologic Effects of Wounds," edited by Fred W. Rankin, M.D. and Michael E. DeBakey, M.D. ($3.50).

"Vascular Surgery," edited by Daniel C. Elkin, M.D. and Michael E. DeBakey, M.D. ($4.25).

"Cold Injury, Ground Type," by Tom F. Whayne and Michael E. DeBakey, M.D. ($6.25).

"Dental Service," by George F. Jeffcott, D.M.D. ($3.25).

"Environmental Hygiene," by James Stevens Simmons, M.D. and others ($3.50).

"Personal Health Measures and Immunization," by John E. Gordon, M.D., Tom F. Whayne, M.D. and others ($3.25).

"Communicable Diseases," Volume IV, by John E. Gordon, M.D., Joseph Stokes, M.D. and others ($5.50).

"Hospitalization and Evacuation, Zone of Interior," by Clarence McKittrick Smith ($4.00).

Cancer Symposium Will Be Held in Tulsa

Tulsa will host the Eighth Annual Cancer Symposium of the American Cancer Society, Oklahoma Division on December 3, 1960. Headquarters for the one-day meeting will be in the Hotel Tulsa.

A detailed program of the one-day meeting follows:

8:00 a.m.-9:00 a.m.—Registration

9:00 a.m.-12:15 p.m.—Morning Session

John R. Heller, M.D., President, Sloan-Kettering Memorial Hospital, New York City, "Cancer and Viruses"

Harry S. N. Greene, M.D., Laboratory of Pathology, Yale University School of Medicine, "Biological Differentiation of Benign and Malignant Tumors"

Gerald O. McDonald, M.D., Professor of Surgery, University of Illinois, "Mechanisms of Cancer Dissemination"

Gilbert H. Fletcher, M.D., M.D. Anderson Hospital and Tumor Institute, "Clinical Evaluation of Supervoltage Roentgen Therapy"

General Discussion with Question and Answer Period

12:30 noon—Luncheon

2:00 p.m.-5:00 p.m.—Afternoon Session

Dr. Heller—"Chemotherapy of Cancer"

Dr. Greene—"Inhibitory Influence of a Transplanted Hamster Lymphoma on Metastases"

Dr. McDonald—"Chemotherapy as an Adjunct to Surgery for Malignancy"

Dr. Fletcher—"The Place of Radiation Therapy in the Treatment of Breast Carcinomas"

General Discussion with Question and Answer Period

AMA Clinical Meeting Schedules Color Telecasts

Six one-hour, color television presentations originating in Georgetown University Hospital will be shown at the National Guard Armory during the 14th Clinical Meeting of the American Medical Association in Washington, D.C., November 28-December 1.

The live presentations, televised in a special studio or from operating rooms at the hospital, will deal with dermatology, pediatrics, emergency treatment of major injuries, newer methods in surgical treatment of peptic ulcer, orthopedics and pathology.

Dermatology

Demonstration of common skin lesions on patients and discussion of the cases by two physicians; a review of common skin lesions, their diagnosis and differential points.

Pediatrics

Presentation of mental retardation in children as a treatable disease. Consideration of the three conditions manifesting mental retardation—brain damage, metabolic disease and special defects. Diagnosis and treatment.

Major Injuries

Presentation of methods of approach to the acutely injured patient. Discussion of immediate, emergency care of a group of common serious injuries. Outline in a graphic manner of the lifesaving methods which must be used.

Peptic Ulcer

Presentation of an operation for the treatment of duodenal ulcer. Operation showing a hemi-gastrectomy, vagotomy and gastroduodenostomy. Diagnostic criteria.

Orthopedics

Surgical clinic on the reconstruction of diseased joints; an operation using compressed polyvinyl sponge. Panel discussion of indications for operation in arthritis and other joint diseases.

Pathology

Presentation of characteristic lesions and x-ray patterns of pulmonary diseases. Graphic illustration of the gross and microscopic pathologic lesions of certain diseases of the lung, including eosinophilic granuloma and infectious pseudo-tumor.



Oklahoman Elected Medical Assistants Speaker

Mrs. Lucille Swearingen, Bartlesville, Oklahoma, was elected speaker of the House of Delegates of the American Association of Medical Assistants during the group's annual meeting held recently in Dallas.

Mrs. Swearingen, the wife of R. A. Swearingen, was named during concluding sessions of the AAMA's fourth annual convention. Employed as a medical assistant in the offices of Doctors V. M. Lockhard and F. C. Wallingford, Bartlesville radiologists, Mrs. Swearingen served as president of AAMA in 1959.

More than 400 women employed as nurses, medical assistants and secretaries in physicians' offices attended educational and business sessions at the Hotel Adolphus. Only four years old, the American Association of Medical Assistants now has more than 9,000 members in 28 states around the country.

PHS Begins Occupational Health Activity

The strengthening of the Public Health Service's nation-wide program to protect the health of American workers through the creation of a new Division of Occupational Health was announced today by the Surgeon General.

The new Division, which replaces the Occupational Health Program, follows the recommendation of the Study Group on Mission and Organization of the Public Health Service, designed to place greater emphasis on all types of environmental health hazards. It provides for "long-needed increased efforts" in the occupational health field as recommended to the Surgeon General by the Study Group. Doctor Harold J. Magnuson has been named Chief of the new Division.

To keep pace with a changing technology and multiplying hazards in the work environment, the Division will carry out an expanded research program directed at developing better techniques, materials, and equipment for use in the prevention, diagnosis, and treatment of occupational disease. Major research efforts will be intensified in toxicology and in related fields of clinical medicine, engineering, chemistry, and physics. In addition, the physiological and psychological factors in the work environment will come under more penetrating study.

Greater emphasis will also be focused on the training of personnel in occupational medicine and nursing and in industrial hygiene to meet the needs of this rapidly growing field. The Division will work with academic institutions and other groups to help develop the necessary professional resources.

A third area of major expansion is in state aid services, designed to support and assist official agencies in the development and operation of occupational health programs throughout the nation.

The Division will also be responsible for stimulating effective community and industrial efforts to supply occupational health services.

Research and technical services, as well as training activities, will be carried out at Cincinnati, Ohio. State aid activities, occupational health nursing consultation, and studies and consultation relating to employee health programs will be centered at the Division's administrative headquarters in Washington, D.C.

Physicians Warned Against Tricks of Addicts

According to Arnold Moseley, Chief of the Narcotic Enforcement Division of the Attorney General's Office, several new ruses are being used by addicts to illegally get narcotics from physicians and pharmacists.

One report tells of a woman with nursing experience who went to a doctor complaining of a kidney stone. At first, x-ray examination indicated the presence of a stone, but the physician's suspicion led him to pursue the investigation to the extent he finally located a bead in the vagina, situated in a position where it appeared on x-ray as a stone.

Another method of deceit which has been used recently involves a fake telephone prescription from an alleged physician to the pharmacist. A person will call the drugstore, asking if a certain doctor has called in a prescription. The pharmacist has, of course, received no such call, so the person will then tell him that the doctor has probably gone home and can be reached there by phone (the caller has previous knowledge that the physician is not at home). The person also states that the doctor gave him another number where he could be reached in the event he was not at home. When the pharmacist calls the physician's home and receives no answer, he calls the other number and a woman answers, who, in turn, then calls an imposter-doctor to the phone. The fake doctor admits that he forgot to call in the prescription for 12 tables, 100 mg. each of demerol and further asks the pharmacist to have the patient call him when he picks up the prescription in order that an appointment may be made to remove the stitches.

The alleged doctor has often been able to use the correct registry number of the physician he is impersonating. This envolved ruse has been used successfully in the Oklahoma City area.

Electronic Larynx—New Device for Laryngectomees

A new electronic larynx is now available for persons who have lost their voices through paralysis or surgical removal of the vocal cords.

This device weighs seven ounces and is designed to fit in the user's hand. The user holds it against the outside of his throat and the electronic larynx transmits sound waves into the throat cavity. A finger control enables the user to vary the pitch of his voice over a half-octave range in order to produce more natural inflections of speech and to emphasize words and phrases.

It is produced in two models—one is high pitched to simulate the female voice and the other has a lower pitch for use by men.

The electronic larynx was developed by Bell Telephone Laboratories scientists, working in cooperation with the medical staff of the National Hospital for Speech Disorders in New York City.

The device is being sold by Bell System telephone companies at a non-profit cost of $45. It is manufactured by Western Electric Company, supply and manufacturing branch of the Bell Telephone System. Each new unit carries a one year guarantee against manufacturer's defects. After the guarantee period has expired, Western Electric will repair the artificial larynx at a small, non-profit cost.

In Oklahoma the electronic larynx is being sold by Southwestern Bell Telephone Company. Call any Southwestern Bell Business Office for information on availability of the device and arrangements for demonstrations.

A spokesman said the company is training representatives to demonstrate the electronic larynx.

"Our representatives will not try to be speech therapists," he pointed out. "We will urge all interested persons to first consult their own physicians about using the electronic larynx. We will point out that esophageal speech generally is the preferred method of communications for laryngectomees and that the artificial device primarily is designed for use by persons unable to master this method speech or who temporarily lose the ability to talk this way."

The electronic larynx is essentially trouble-free, he said. It uses Bell transistors and is powered by self-contained mercury batteries. Battery life ranges up to several months, depending on amount of use. New batteries may be purchased at any radio supply store.

The speech volume is equivalent to a normal talker speaking at a conversational level.

The spokesman said most persons can learn to talk with the electronic larynx after a relatively short period of practice. With more practice, the user can learn to operate the pitch control to produce speech with a considerable degree of intelligibility and naturalness.

The Bell System has provided artificial larynges to laryngectomees for many years. While the new electronic larynx replaces the earlier models, parts for the older models will still be available.

American Rheumatism Ass'n To Meet in Dallas

For the first time in its history, the American Rheumatism Foundation will meet in the Southwest, holding its Seventh Interim Scientific Session in Dallas on December 9 and 10. The event will take place in the Sheraton-Dallas Hotel.

During the Saturday morning session, the ARA members will be joined by the members of the Texas Academy of Internal Medicine and the members of the Texas Rheumatism Association. Current meeting plans provide for a panel discussion on "Lupus Nephritis," with participation by a nationally known pathologist, electromicroscopist and several clinicians. The panelists will discuss the clinical and pathological picture of this lesion and its course on steroid therapy.

There is no registration fee for the meeting. Printed programs will be available at the meeting or two weeks before by writing to the Executive Secretary, American Rheumatism Association, 10 Columbus Circle, New York 19, New York.

$780,000 Contributions Made To 'Project Hope' by Drug Firms

Fifty-two of the nation's leading prescription drug manufacturers have contributed in excess of $780,000 in products and cash to Project HOPE, according to Doctor William B. Walsh, president of the People-to-People Health Foundations, sponsor of the project. Over $100,000 of the companies' contributions were in cash. Product values were computed according to manufacturers' wholesale prices.

The donations, coordinated by the Pharmaceutical Manufacturers Association, came from PHA member companies.

"The support of the member companies of PMA has earned the unending gratitude of the people of Indonesia and Viet Nam," Doctor Walsh said, " and it serves as an example of enlightened generosity to our own fellow citizens. This response has earned the deepest gratitude of all of us connected with Project HOPE."

A part of President Eisenhower's People-to-People program, Project HOPE will send a 15,000 ton hospital ship, the SS HOPE I, to Southeast Asia on September 22. Staffed with American doctors, nurses, and medical technicians, the floating medical center will bring modern medical knowledge and techniques to the medical and health professions of newly developing countries throughout the world.

"As a non-government program, Project HOPE could only succeed with the cooperation and backing of all segments of American society," Doctor Walsh said. "The response of the American drug industry, many other industries, businesses, and groups, American labor, and the American public is proof that our confidence in the conscience of America was warranted."

Doctor Walsh also reported that contributions totaling many thousand of dollars had been raised from non-PMA members in the ethical drug industry and from proprietary drug companies.

Doctor Austin Smith, President of PMA, expressed his gratitude to member companies for their support and pointed out that "the final success of Project HOPE will depend on continuing support of all facets of American industry and the general public."

"I am informed that HOPE has received more than $2 million of the $3.5 million needed to operate the ship for its first year," Doctor Smith said.

Have You Heard?

CHARLES A. SMITH, M.D., Norman, became president of the Mid-Continent Psychiatric Association at the organization's annual meeting which was held in Little Rock, Arkansas, recently. Doctor Smith succeeds LOUIS A. COHEN, M.D., Little Rock, as president.

J. C. WAGNER, M.D., a practicing physician in Ponca City for 38 years, has accepted an appointment as a staff physician for Western State Hospital at Fort Supply as head of the Department of Geriatrics.

F. C. BUFFINGTON, M.D., Norman, has announced his association with FRANK H. COOPER, M.D., formerly of Spearman, Texas. Doctor Cooper is a 1958 graduate from the University of Oklahoma School of Medicine.

PAT FITE SR., M.D., Muskogee, took office as president of the Oklahoma Chapter of the American College of Surgeons during the organization's annual meeting at Western Hills Lodge in Sequoyah State Park. Other officers installed were HUGH PERRY, M.D., Tulsa, vice-president and ED MOORE, M.D., Tulsa, councilor. JOE PARKER, M.D., Oklahoma City, is president-elect of the group.

CHARLES E. GREEN, M.D., Lawton, has been appointed Comanche County Superintendent of Health.

HOWARD FRIEZE, M.D., is now associated with CHARLES HOLLAND, M.D., at the Holland-Frieze Clinic in Broken Arrow. A graduate of the University of Oklahoma School of Medicine, Doctor Frieze had been in practice in Tulsa before moving to Broken Arrow.

Letter to the Editor

Dear Doctor Nicholson:

TWO-WAY RADIO: A Problem Solved

All doctors know the feeling of "nervous relaxation" when they are temporarily "out of pocket" while taking a few hours off for rest, recreation, or personal business. I think that I have this problem of medical practice solved. See how this might help you!

Two-way radio is my new partner. Veterinarians all over the country, especially in the wide-open spaces of the West and Midwest, have been using radio communication for years to save hundreds of miles and hours of time in traveling between calls. For instance, a call to one part of the county might entail 30 to 60 minutes of travel each way. Many times, the veterinarian might find, when he reaches his office, that he has another call to the same vicinity from which he has just returned; one can readily see how much time and effort can be saved by direct communication with the office while it is necessary to be so far away.

Being a small-town doctor, I felt that there was a good chance that two-way radio could save me time in the same way. I discussed the idea with my good friend, the veterinarian, who had only recently established a base station at his home with a mobile unit in his truck and a remote-control unit at his office, whereby he was constantly in touch with his office during office hours and with his home during off-hours. He very kindly consented to my purchasing a mobile unit for my car and a remote-control unit for my home to operate on his frequency. Now I am in touch with my office and my home at all times. If I want to run out to a good fishing hole for an hour or two I can do so with complete relaxation. During the wee hours of the night or at any time that my DVM friend is at home, he merely flicks a switch so that he will not be bothered by any transmission on my set. The argument that this makes me *too* available is not valid, because—remember—I can always turn the doggone thing off!

Now the sets which we have are not the citizen-band sets which are good for only a few miles; our sets are on a strict frequency with station assignment by the Federal Communications Commission. The range is about 25 miles, which is adequate for my purposes. The cost is nominal, for I purchased good reconditioned equipment. My car mobile unit cost $275.00, and the remote-control unit for my home cost $100.00. I use these only for business, which was my sole purpose in getting the radios in the first place; therefore, the cost is tax-deductible.

I feel that I save so much time and at the same time am more readily available that I wouldn't be without my radio now, although I have had to take some ribbing now and then . . . having been accused of trying to make more money as a taxi or by taking calls for the vet!!

A few examples of my use of the radio may further point out its advantages. For instance, after lunch, I can run a few personal errands about town, all the while keeping in touch with my office as to whether there are patients waiting for afternoon office hours. Evening time is saved by keeping in touch with my wife so that she knows where I am and when I may be expected for dinner. Only this morning, I made a house call several miles out into the country, where I found that my patient was a cardiac case. I notified the hospital via my radio that I was bringing in the patient, and the nurses were able to set up a room with oxygen and to meet me at the emergency room entrance.

My expense was not great; however, it would be only fair to say that if you do not have a kind friend who already has a base station, your initial outlay will be higher. Even so, if one shops around for *good* used equipment, the cost is not prohibitive. Also, there is the possibility that there may be several of your colleagues with whom you could share the expense.

Two-way radio is here to stay with me. But I never forget that I can always turn it off.

LYNN C. BARNES, Jr., M.D.
Box 352, Nowata, Oklahoma

Coming Meetings

University of Oklahoma Medical Center
POSTGRADUATE SHORT COURSES

Dec. 14—Anesthesiology—Anesthesia in General Practice.

Jan. 11—Pediatrics—Pediatric Radiology (tentative).

Feb. 8—Medicine—Cerebral Vascular Disease.

March 8—Urology—Symposium and C. B. Taylor Lectureship.

April 12—Surgery—Techniques of Cardiac Resuscitation.

May 10—Pediatrics—Infectious Diseases in Infancy and Childhood (tentative).

Courses, offering four hours of formal instruction, are held from 3:30 to 8:30 p.m., the second Wednesday of the month, in the Medical School Auditorium. Registration is $3 per session or $25 for the entire series. Additional information may be obtained by writing the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Oklahoma City, Oklahoma.

Oklahoma Chapter
AMERICAN ACADEMY OF GENERAL PRACTICE
February 6, 7, 1961 **Biltmore, Hotel**
Oklahoma City, Oklahoma

The 13th Annual Meeting of the Oklahoma Chapter of the American Academy of General Practice will be held at the Biltmore Hotel in Oklahoma City, February 6, 7, 1961.

Details may be obtained by writing to the Executive Secretary, Oklahoma Chapter, American Academy of General Practice, 503 Medical Arts Building, Oklahoma City.

CORONARY ARTERY DISEASE
Nov. 28-Dec. 2, 1960 **Texas Medical Center**
Houston, Texas

The University of Texas Postgraduate School of Medicine will present a symposium on Coronary Artery Disease, November 28 through December 2, 1960 at the Texas Medical Center, Houston, Texas. Six guest lecturers, augmented by a local faculty, will present the program.

This five-day program has been approved by the Academy of General Practice for Category I Credit. No tuition will be charged unless physicians attending desire AAGP credit in which case a $5.00 registration fee will be required.

For further information write: Office of the Dean, University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25, Texas.

GENERAL PRACTICE REVIEW
January 8-14, 1961 **Denver, Colorado**

An annual postgraduate course designed especially for the general practitioner will be held January 8-14, 1961 in Denver, Colorado.

Detailed information may be obtained by writing to the Office of Postgraduate Medical Education, the University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver 20, Colorado.

ROCKY MOUNTAIN TRAUMATIC SURGICAL SOCIETY
January 26, 27, 28 1961 **Aspen, Colorado**

The Rocky Mountain Traumatic Surgical Society will meet in Aspen, Colorado, January 26, 27, 28, 1961 with headquarters at the Aspen Meadows.

Further information may be obtained by writing to Hugh A. MacMillan, M.D., 1801 High Street, Denver 18, Colorado.

9th ANNUAL CANCER SEMINAR
Arizona Division
American Cancer Society
January 12, 13, 14, 1961 **Tidelands Motor Inn**
Tucson, Arizona

"Changing Concepts in Tumor Formation and Therapy" will be the theme for the three-day meeting of the 9th Annual Cancer Seminar to be presented by the Arizona Division of the American Cancer Society on January 12, 13 and 14, 1961 in Tucson, Arizona.

Further information may be obtained by writing to the American Cancer Society, Arizona Division, 37 East Jackson Street, Tucson, Arizona.

THE AMERICAN COLLEGE OF PHYSICIANS
Schedule of Postgraduate Courses
Autumn-Winter, 1960-1961

The following postgraduate courses have been listed by the American College of Physicians:

RECENT ADVANCES IN DRUG THERAPY
January 9-13, 1961 — University of Washington School of Medicine, Seattle, Washington

MECHANISMS OF DISEASE
January 16-20, 1961 — Columbia University College of Physicians and Surgeons, New York City, New York

SELECTED TOPICS IN INTERNAL MEDICINE
February 20-24, 1961 — University of Oklahoma School of Medicine, Oklahoma City, Oklahoma

Additional information may be obtained by writing to The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania.

Auxiliary News

Sink or Swim?

"Unhampered medical schools constitute the foundation of the free enterprise system of the private practice of medicine," says Mrs. James L. McCartney, National A.M.E.F. Chairman. We concur; how do we help?

Many auxiliaries budget their contribution. Some counties have special fund-raising projects. Members contribute regularly, in some cases; while others send memorials through A.M.E.F.

Last year gifts from Oklahoma totaled $1,147.02, an increase of $439.98 over the preceding year. Based on our July, 1959, membership, our per capita contribution was $1.00. Can we, who express deep concern and interest in our own University of Oklahoma School of Medicine, be proud of this record? The answer is obvious. How thankful we can all be that we have time to make constructive amends.

At the National Convention presentation of a check for $175,010.00 was made by National to the American Medical Education Foundation. This represents an average of $2.24 from each Auxiliary member. As you can quickly see, Oklahoma contributed less than half the national average. We are asked this year to insure a $5.00 contribution from each member. In view of the current situation, can we not guarantee our cooperation?

If you have not read our previous coverage on A.M.E.F., consult your local chairman or county president for details on the proper way to make your contribution or memorial. By starting immediately, we can arouse the interest of every member. Our State Chairman is Mrs. F. H. McGregor, 928 N.E. 15th Street, Oklahoma City.

For further reading, consult your September A.M.A. Auxiliary *Bulletin*, pages 11, 27, and 58. The latter article, *Medicine as a Career*, by Glen R. Shepherd, M.D., is a "must," also, for Health Careers and Recruitment Chairmen.

Fall Conference

October 24th a "sunny Monday" Fall Conference was held at the State Medical Office in Oklahoma City. Mrs. Peter A. MacKercher, State Program Chairman, introduced the participants with a lively wash-day theme. New plans and ideas, coupled with reports from all of our busy officers, chairmen and county presidents, tumbled from the pink washer-dryer podium. Preceding the board meeting, a coffee was served to members and guests by the Hospitality Committee. Mrs. Virgil Ray Forester, State President, presided at both the board meeting and at the luncheon at Ramada Inn. During the luncheon, keynoted by a musical theme, current fashions were modelled.

The Two R's

Required Reading: Last month we mentioned the almost impossible task of keeping up with current reading in the field of medical problems. Not too long ago our doctor husbands were complaining about lack of time to cover articles by Paul de Kruif and Maxine Davis before their patients bombarded them with questions. The trend today—in our own direction—is toward defensive preparation, being able to give intelligent answers to many questions.

Harper's October medical supplement, *The Crisis in American Medicine* provides these provocative titles: *The Politics of Medicine; The Decline of the Healing Art; The Patient's Right to Die; Do You Really Want a Family Doctor?; A Doctor Prescribes for His Profession*; and several others. Whether you agree, disagree, or have never particularly thought about some of these problems, they concern each of us. If we are to help "Preserve and enhance the heritage of American Medicine," we must, above all, participate actively in our medical auxiliary and keep in step with today's problems.

Deaths

Sam P. Ross, M.D.
1862-1960

Sam P. Ross, M.D., 98-year-old Ada physician died October 10, 1960.

A native of Missouri, Doctor Ross graduated from Baylor University College of Medicine. Coming to Oklahoma in 1900, he established his practice in Kiowa. After ten years in Kiowa, Doctor Ross moved to Ada where he remained until his retirement in 1947.

The Oklahoma State Medical Association honored Doctor Ross in 1942 when they made him an Honorary Member and again in 1951 when he was presented a 50-Year-Pin in recognition of his years of service to the medical profession.

Claude Bryan Waters, M.D.
1907-1960

Claude Bryan Waters, M.D., 53-year-old Pawnee physician and rancher, died October 7, 1960 in Pawnee

After graduating from the University of Oklahoma School of Medicine in 1934, Doctor Waters practiced medicine in Marietta and Duncan prior to his service with the U.S. Army during World War II. After his discharge, he established a limited practice in Pawnee.

PHYSICIAN PLACEMENT

General Practice

John William Kennard, M.D., Blowing Rock Hospital, Blowing Rock, North Carolina; married; age 29; Bowman Gray School of Medicine, 1956; veteran; available August 29, 1960.

Carle H. Schroff, M.D., 3811 State Line, Kansas City 11, Missouri: Age 31; married; University of Kansas, 1959; veteran; available August, 1960.

Floyd E. Webb, Jr., M.D., 2527 Webster Drive, Alexandria, Louisiana; age 27; married; University of Oklahoma, 1957; available August, 1961.

Kenneth T. Woodsides, M.D., 1923 19th Loop, Sandia Base, Albuquerque, New Mexico; age 27; married; Medical College of Alabama, 1957; available April, 1961.

Internal Medicine

Spencer E. Berry, M.D., 13630 Flynn, Le Puente, California; single; University of Oklahoma, 1950; available now.

Jeanne B. Johnson, M.D., 4917 SE Cornell Drive, Bartlesville, Oklahoma; age 31; married; University of Oklahoma School of Medicine, 1955; specialty, internal medicine; eligible, immediately.

Sam A. Kinard, Jr., 3522 E. 17th Avenue, Denver 6, Colorado; age 29; married; Baylor University of Medicine, 1956; 2 years medical residency and 2 years cardiology residency; available July, 1961.

Jack G. Smith, M.D., 812 North Third St., Bellaire, Texas; age 32; married; University of Texas School of Medicine, 1953; available January, 1961.

Thomas Turner Walton, Jr., M.D., 7375 Churchill, Detroit, Michigan: Age 29; married; Baylor College of Medicine, 1955; Board eligible; veteran; specialty, internal medicine; desires group or associate practice: eligible, July 1961.

Locum Tenens

Harold W. Calhoon, M.D., Wesley Hospital, Oklahoma City. One year residency in Internal Medicine. Available July 1 to September 15th, 1960.

Russell M. Preston, M.D., 476 San Juan, Oak Harbor, Washington, desires six month's work in General Practice between time of separation from military service to beginning of residency training, January-July, 1960.

Obstetrics and Gynecology

Walter G. Crowe, M.D., Mercy Hospital, Pride 4, Locust St., Pittsburgh, Pennsylvania; age 39; married; University of Tennessee College of Medicine, 1955; board eligible; available March 10, 1961.

Gerald R. Keilson, M.D., Medical Arts Building, Dallas, Texas, age 31, married, University of Texas, 1953, board qualified, veteran, available in July 1960.

Juan C. Ruiz, M.D., 350 Park Ave., Lexington, Kentucky; age 36; married; University of San Marcos Medical School 1952; no military obligations; available July 1, 1960.

Robert B. Williams, M.D., 27 Normandy Road, Auburndale 66, Massachusetts; married; age 30; Tulane University, 1955; board certified; available July 1, 1961.

Surgery

David S. Bachman, M.D., 301 North 2nd St., Allentown, Pennsylvania; age 38; married; University of Buffalo, 1947; board certified general surgery; specialty, broncho-esophagology and thoracic surgery; available immediately.

Emmet J. Thorpe, M.D., 6811 Stockton Drive, Knoxville, Tennessee; age 32; married; George Washington University School of Medicine, 1951; completed Part I of the requirements of the American Board of Orthopedic Surgery; available immediately.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association, November, 1935.

Principles Involved in the Surgical Diseases of the Newborn

JOHN F. BURTON, M.D., F.A.C.S.
Instructor in Surgery, State University School of Medicine, Oklahoma City

First Principle

No surgical treatment should be attempted until the outward signs of the establishment of the vital functions indicate that the individual is making satisfactory adjustments. This to be corroborated by such laboratory tests as urinalysis, blood count, bleeding time and coagulation time to determine if the parenchymal cells are functioning normally.

Second Principle

Thorough, adequate protection and preparation. I mean by that, that the infant should be protected from excessive stimuli. He should lie upon a soft pad; the body temperature should not unduly vary; and above all he should be spared the unpleasant sensation of pain—that is, adequate yet safe anesthesia, in the form of one-half per cent Novacain, should be first choice and where stronger anesthesia is indicated, open ether. In the manner of preparation, he should have normal fluid volume. This may be accomplished by the administration of saline or glucose subcutaneously or intravenously.

Third Principle

The knowledge of structure and function upon the part of the surgeon coupled with an accurate delicate touch. He should know that the tissues of the newborn do not stand trauma well, that the period of anesthesia must be shorter than in an adult, that exposure and loss of body fluids are very prone to produce shock in these individuals, and that their ability to react to injury is limited.

Fourth Principle

Any surgical treatment attempted should be of real and vital necessity. This would be exemplified in such conditions as a congenital atresia of the esophagus, lack of development of portions of the intestine, imperforate or non-development of an anus. The procedure selected should be of the very simplest and the most rapid in performance to accomplish the end desired, ever remembering that since the child is making adjustments gradually, the surgical procedures can likewise be done in stages.

Fifth Principle

Proper post-operative care. The united efforts of both the internist and the surgeon should be directed toward:

1. The maintenance of proper body temperature.
2. The protection from irritable stimuli.
3. The providing of proper and adequate nourishment.
4. The restoration of the vital functions as rapidly as possible.

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FULLY EQUIPPED general practice office and x-ray practice immediately available. May be purchased with the income from the practice. Ideal for internist or generalist. Call WE 6-9453 or write John C. Kramer, M.D., 1547 South Lewis, Tulsa 4, Oklahoma.

WANTED: Internist to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association. P.O. Box 9696, Oklahoma City, Oklahoma.

FOR SALE: 100 M.A. X-ray machine. Contact C. P. Taylor, M.D., 1201-D East 5th, Ada, Oklahoma. FE 2-4424.

EXCELLENT OPPORTUNITY for doctor interested in general practice. Three-doctor clinic in town of 5,000, trade territory of 12,000. Contact Bowie Clinic, Bowie, Texas.

WANTED: Surgeon to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

WANTED: Board qualified surgeon and urologist to join Community Hospital-Clinic Staff. Contact Donald S. Leham, M.D., Medical Director, Elk City, Oklahoma.



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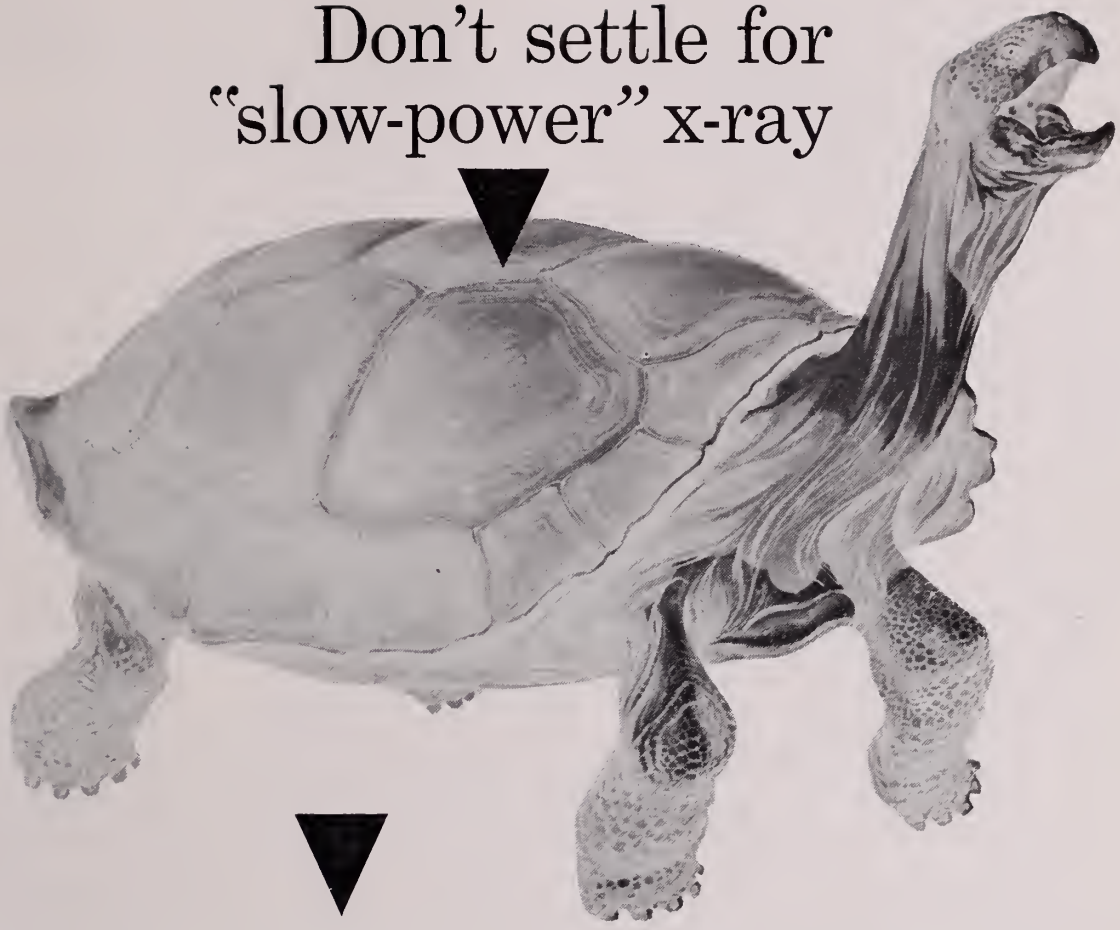
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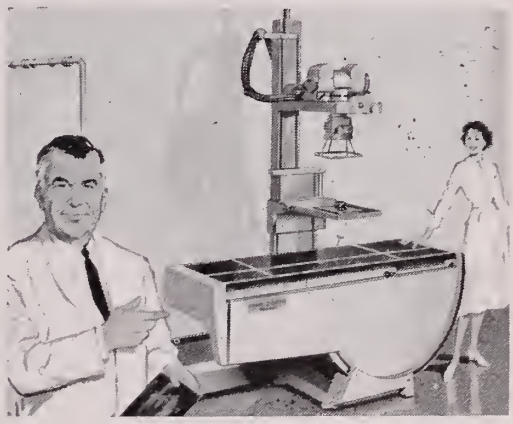
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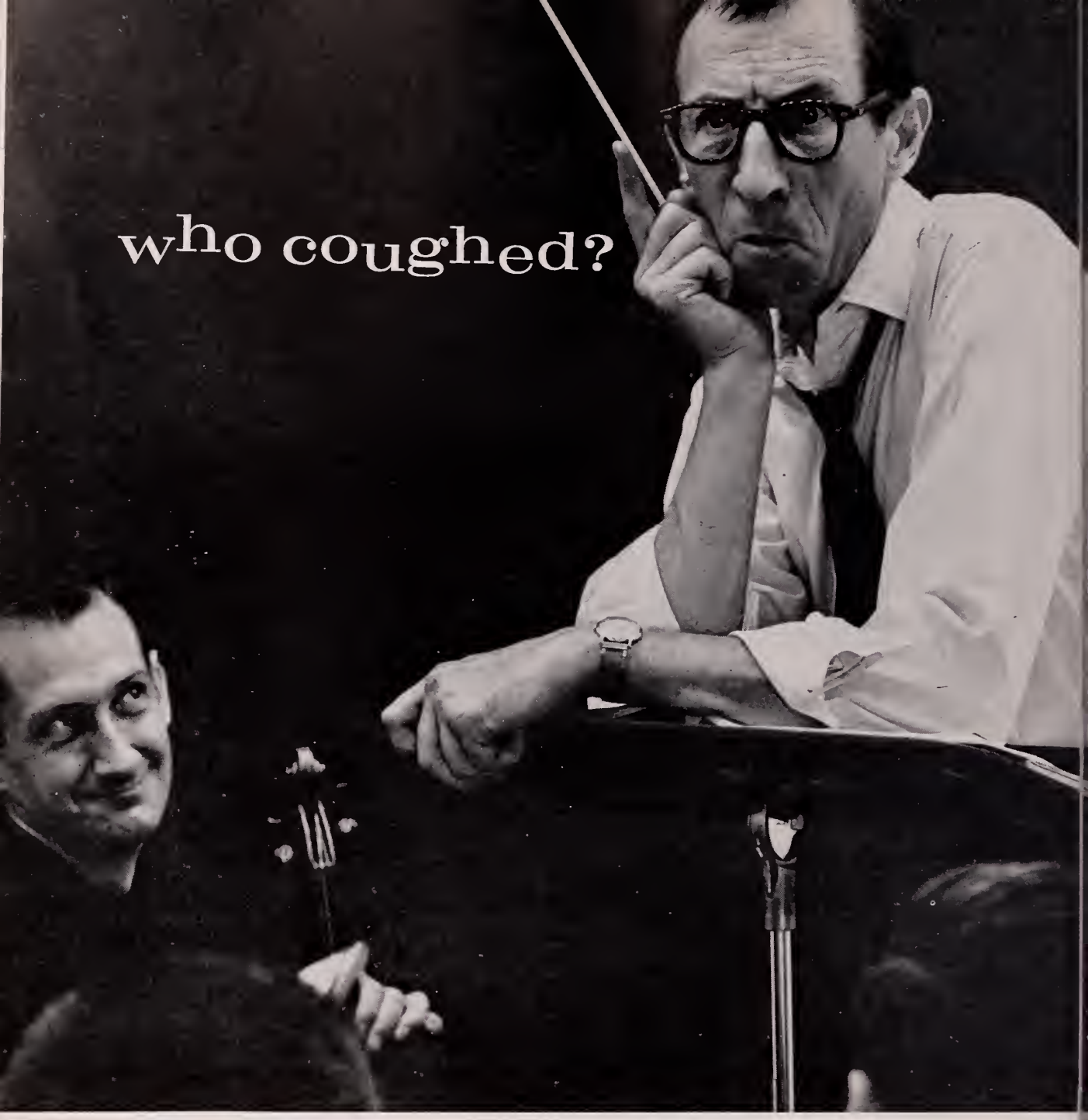
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Dihydrocodeinone Bitartrate	5 mg.	6.5 mg.
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Homatropine Methylbromide	1.5 mg.	
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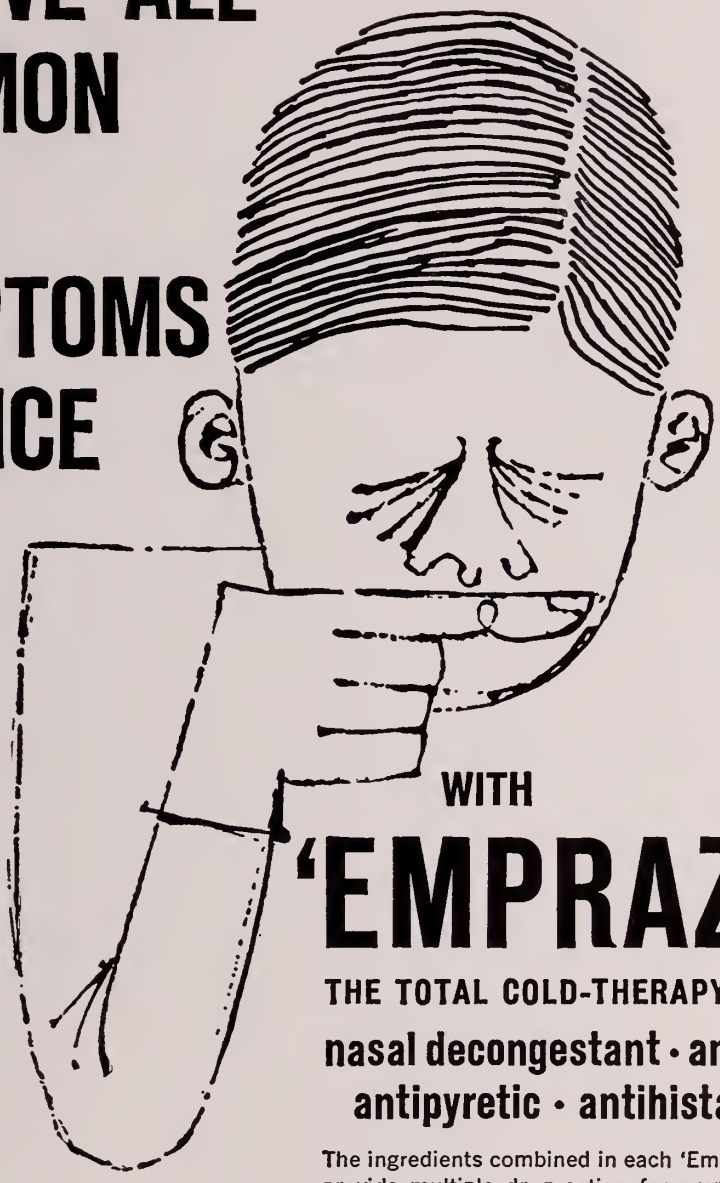
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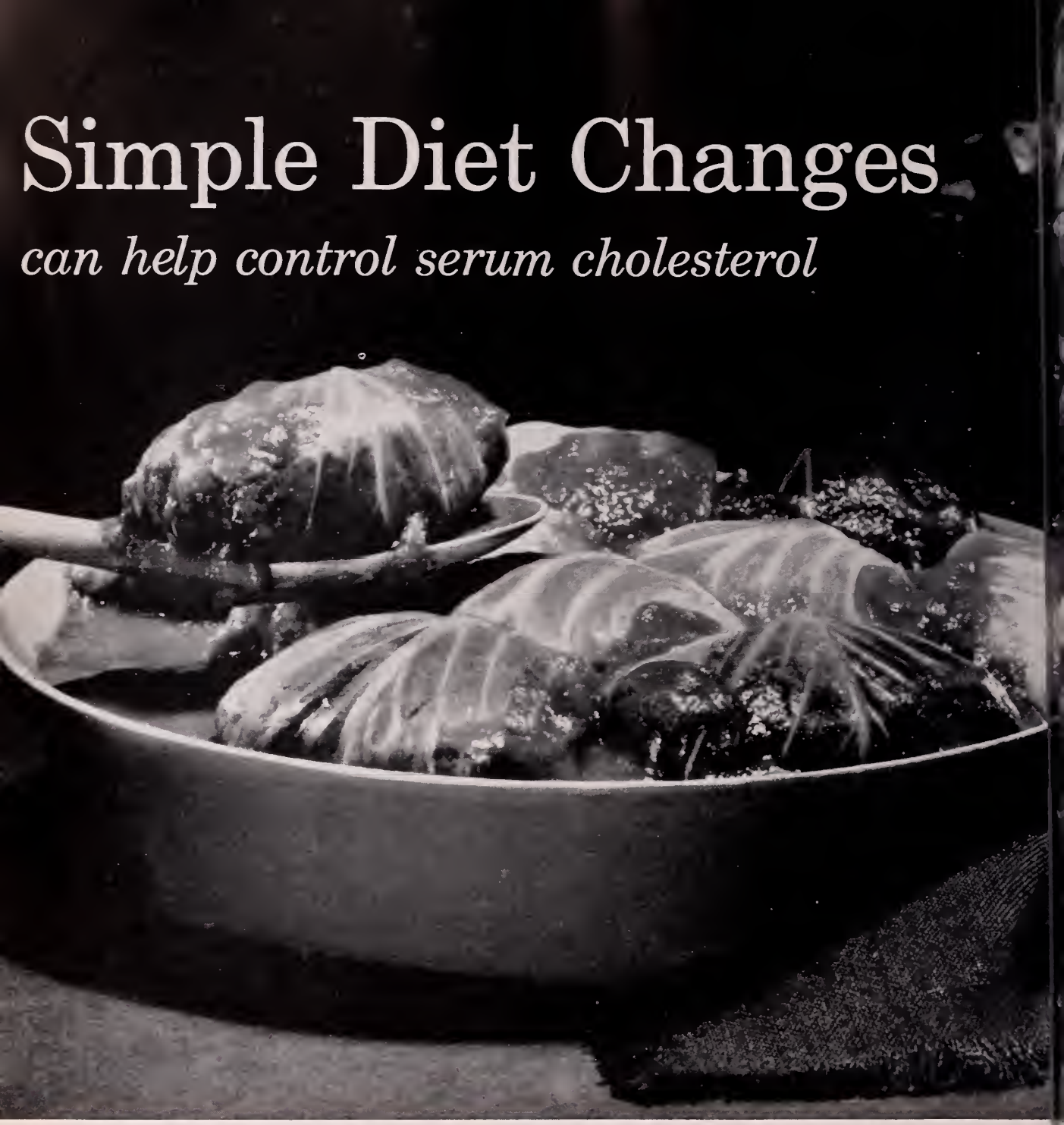
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References: 1. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 2. Ford, R. V.: Current Therap. Res. 2:92 (Mar.) 1960.

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extra-activity...promptly attained

DECLOMYCIN Demethylchlortetracycline attains —usually within two hours—blood levels more than adequate to suppress susceptible pathogens. These levels are attained in tissues and body fluids on daily dosages substantially lower than those required to elicit antibiotic activity of comparable intensity with other tetracyclines. With other tetracyclines, the average, effective, adult daily dose is 1 Gm. With DECLOMYCIN Demethylchlortetracycline, it is only 600 mg.



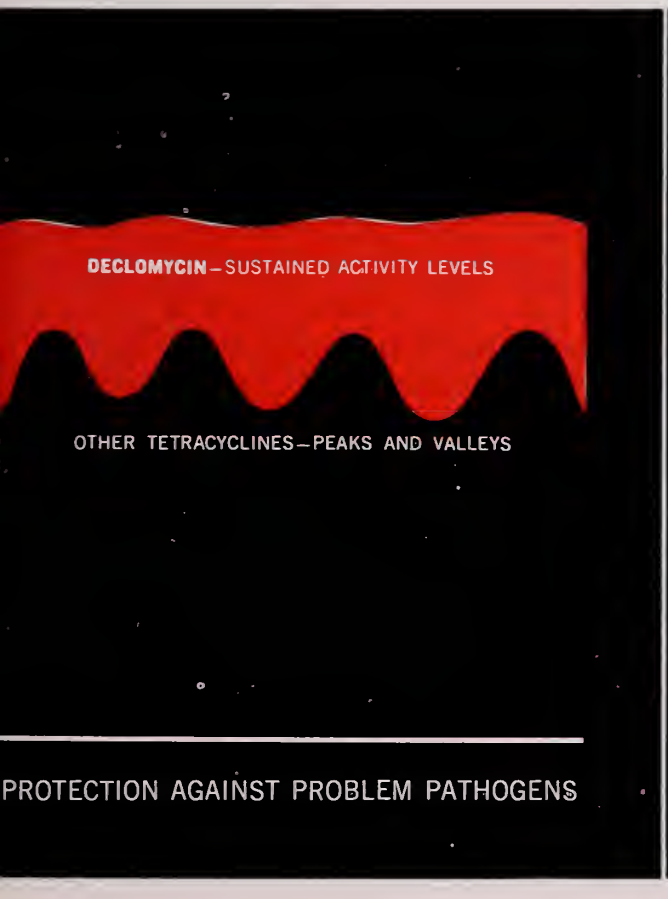
DECLO

evenly sustained

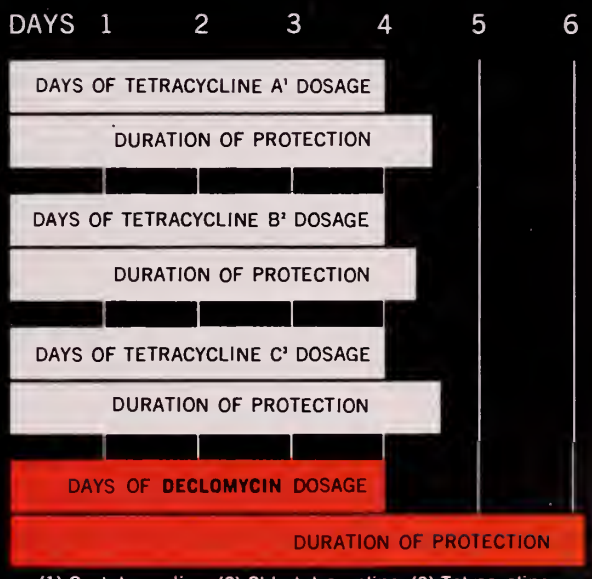
DECLOMYCIN Demethylchlortetracycline sustains, through the entire therapeutic course, the high activity levels needed to control the primary infective process and to check the onset of a complicating secondary infection at the original—or at another—site. This combined therapeutic action is sustained, in most instances, without the pronounced hour-to-hour, dose-to-dose, peak-and-valley fluctuations in activity levels which characterize other tetracyclines.

long retained

DECLOMYCIN Demethylchlortetracycline retains significant activity levels, up to 48 hours after the last dose is given. At least a full, extra day of positive antibacterial action may thus be confidently expected. One capsule four times a day, for the average adult in the average infection, is the same as with other tetracyclines—but the **total** dosage is lower and the duration of anti-infective action is longer.



PROTECTION AGAINST PROBLEM PATHOGENS



(1) Oxytetracycline. (2) Chlortetracycline. (3) Tetracycline.

PROTECTION AGAINST RECURRENCE

MYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

- higher activity/intake ratio—positive antibacterial action
- sustained activity levels—protection against problem pathogens
- up to two extra days' activity—protection against recurrence

CAPSULES, 150 mg., bottles of 16 and 100. **Dosage:** Average infections—1 capsule four times daily. Severe infections—Initial dose of 2 capsules, then 1 capsule every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. **Dosage:** 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into 4 doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored), bottles of 2 and 16 fl. oz. **Dosage:** 3 to 6 mg. per pound body weight per day—divided into 4 doses.

PRECAUTIONS: As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under observation.

for the added measure of protection in clinical practice

DECLOMYCIN®

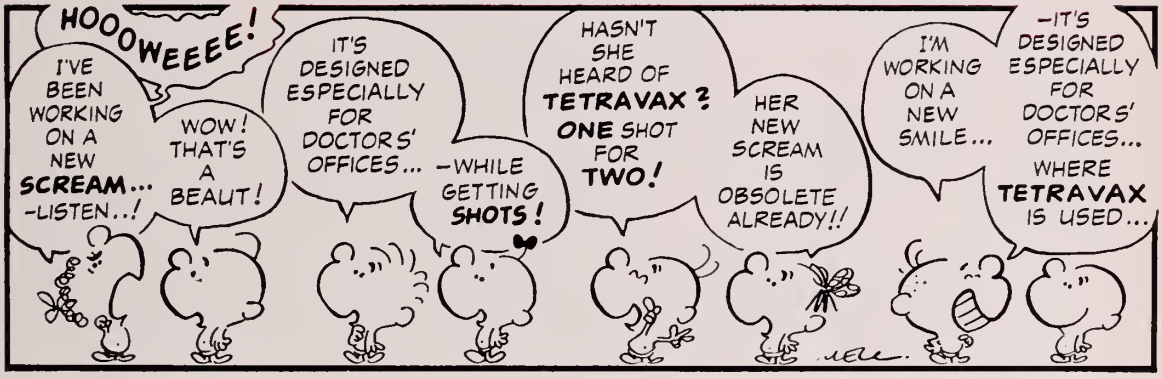
DEMETHYLCHLORTETRACYCLINE LEDERLE

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

FOR SIMULTANEOUS IMMUNIZATION AGAINST 4 DISEASES:

Poliomyelitis-Diphtheria-Pertussis-Tetanus

PEDI-ANTICS



TETRAVAX®

DIPHTHERIA AND TETANUS TOXOIDS WITH PERTUSSIS AND POLIOMYELITIS VACCINES

now you can immunize against more *diseases...with* fewer *injections*

Dose: 1 cc.
Supplied: 9 cc. vials in *clear plastic* cartons. Package circular and material in vial can be examined without damaging carton. Expiration date is on vial for checking even if carton is discarded.



For additional information, write Professional Services, Merck Sharp & Dohme, West Point, Pa.

TETRAVAX IS A TRADEMARK OF MERCK & CO., INC.

MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

In over five years

Proven
in more than 750 published clinical studies

Effective
for relief of anxiety and tension

Outstandingly Safe

1. simple dosage schedule produces rapid, reliable tranquilization without unpredictable excitation
2. no cumulative effects, thus no need for difficult dosage readjustments
3. does not produce ataxia, change in appetite or libido
4. does not produce depression, Parkinson-like symptoms, jaundice or agranulocytosis
5. does not impair mental efficiency or normal behavior

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets.
Also as MEPROTABS*—400 mg. *unmarked*, coated tablets; and as MEPROSPAN®—400 mg. and 200 mg. *continuous release* capsules.

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-2537

*TRADE-MARK

stops tension

For neuralgias, dysmenorrhea, upper respiratory distress, postsurgical conditions... new compound kills pain, stops tension, reduces fever—gives more complete relief than other analgesics.

Soma Compound is an entirely new, totally different analgesic combination that contains three drugs. First, Soma: a new type of analgesic that has proved to be highly effective in relieving both pain and tension.* Second, phenacetin: a "standard" analgesic and antipyretic. Third, caffeine: a safe, mild stimulant for elevation of mood. As a result, the patient gets more complete relief than he does with other analgesics.

Soma Compound is nonnarcotic and nonaddicting. It reduces pain perception without impairing the natural defense reflexes.*

NEW NONNARCOTIC ANALGESIC

soma® Compound

Composition: Soma (carisoprodol), 200 mg.; phenacetin, 160 mg.; caffeine, 32 mg.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 apricot-colored, scored tablets.

NEW FOR MORE SEVERE PAIN

soma® Compound + codeine

BOOSTS THE EFFECTIVENESS OF CODEINE: Soma Compound boosts the effectiveness of codeine. Therefore, only ¼ grain of codeine phosphate is supplied to relieve the more severe pain that usually requires ½ grain.

Composition: Same as Soma Compound plus ¼ grain codeine phosphate.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 white, lozenge-shaped tablets; subject to Federal Narcotics Regulations.

References available on request.

WALLACE LABORATORIES • Cranbury, N. J.

now—for more comprehensive control of

'pain & spasm'



INDICATIONS

HEAD: temporomandibular muscle spasm • NECK: acute torticollis, osteoarthritis of cervical spine with spasm of cervical muscles, whiplash injury • TRUNK AND CHEST: costochondritis, intercostal myositis, xiphodynia • BACK: acute and chronic lumbar strains and sprains, acute low back pain (unspecified), acute lumbar arthritis and traumatic injury, compression fracture, herniated intervertebral disc, post-disc syndrome, strained muscle(s) • EXTREMITIES: acute hip injury with muscle spasm, ankle sprain, arthritis (as of foot or knee), blow to shin followed by muscle spasm, bursitis, spasm or strain of muscle or muscle group, old fracture with recurrent spasm, Pellegrini-Stieda disease, tenosynovitis with associated pain and spasm.

-pain due to or associated with -spasm of skeletal muscle

a new muscle relaxant-analgesic

Robaxisal®

ROBAXIN® WITH ASPIRIN

Many conditions, painful in themselves, often give rise to spasm of skeletal muscles. ROBAXISAL, the new dual-acting muscle relaxant-analgesic, treats both the pain and the spasm with marked success: In clinical studies on 311 patients, 12 investigators[1] reported satisfactory results in 86.5%. Each ROBAXISAL Tablet contains:

- A relaxant component — Robaxin*— widely recognized for its prompt, long-lasting relief of painful skeletal muscle spasm, with unusual freedom from undesired side effects. 400 mg.

*Methocarbamol Robins. U.S. Pat. No. 2770649.

- An analgesic component—aspirin—whose pain-relieving effect is markedly enhanced by Robaxin, and which has added value as an anti-inflammatory and anti-rheumatic agent. . . . (5 gr.) 325 mg.

SUPPLY ROBAXISAL Tablets (pink-and-white, laminated) in bottles of 100 and 500.

Also available ROBAXIN Injectable, 1.0 Gm. in 10-cc ampul. ROBAXIN Tablets, 0.5 Gm. (white, scored) in bottles of 50 and 500.

. . . or when anxiety accompanies pain and spasm: **ROBAXISAL®-PH** (Robaxin® with Phenaphen®). Sedative-enhanced analgesic and skeletal muscle relaxant. Each two white-and-green laminated ROBAXISAL-PH tablets contain: methocarbamol 800 mg., plus the equivalent of one Phenaphen capsule (phenacetin 194 mg., acetylsalicylic acid 162 mg., hyoscyamine sulfate 0.031 mg., and ¼ gr. phenobarbital 16.2 mg.). Bottles of 100 and 500.

[1]Clinical reports in files of A. H. Robins Co., Inc., from: J. Allen, Madison, Wisc., B. Billow, New York, N. Y., B. Decker, Richmond, Va., C. Freeman, Jr., Augusta, Ga., R. B. Gordon, New York, N. Y., J. E. Holmblad, Schenectady, N. Y., L. Levy, New York, N. Y., N. LoBue, Chicago Heights, Ill., H. Nachman, Richmond, Va., A. Poindexter, Los Angeles, Cal., E. Rogers, Brooklyn, N. Y., K. H. Strong, Fairfield, Ia.

Additional information available upon request.

A. H. ROBINS CO., INC., Richmond 20, Virginia

Making today's medicines with integrity . . . seeking tomorrow's with persistence

THE ORIGINAL potassium phenethicillin

SYNCILLIN®

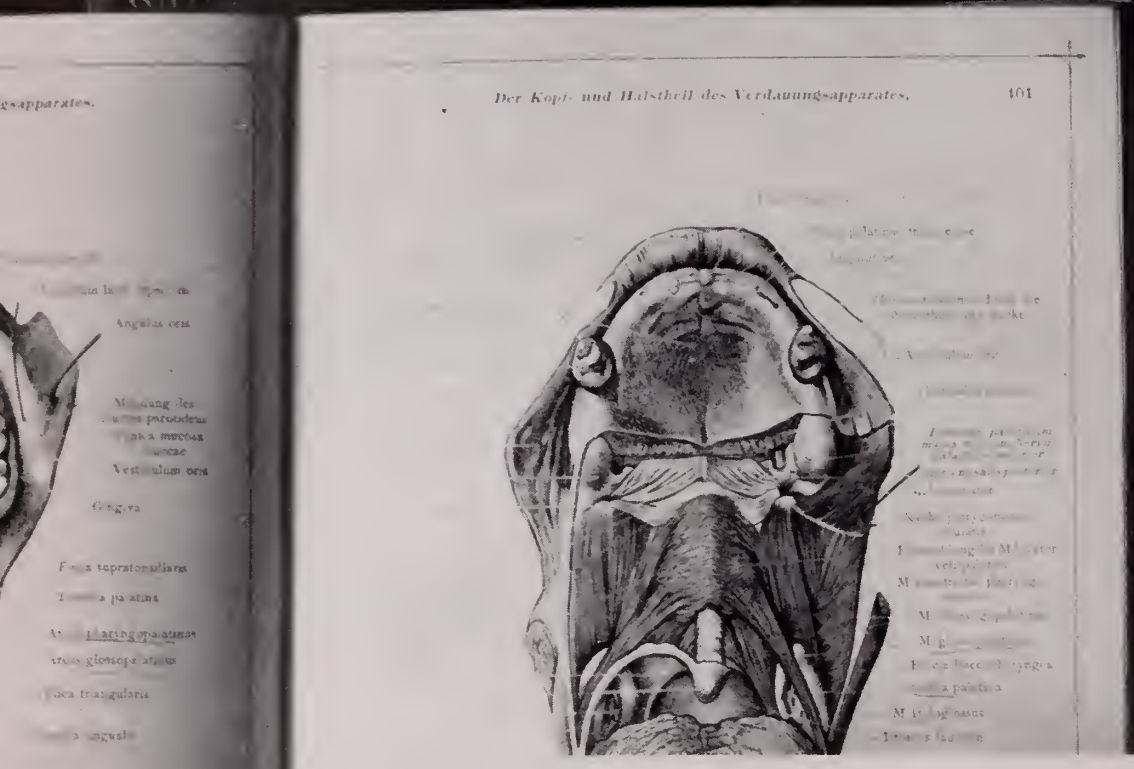
(phenoxyethyl penicillin potassium)

A dosage form to meet the individual requirements of patients of all ages in home, office, clinic, and hospital:

Syncillin Tablets — 250 mg. (400,000 units)... Syncillin Tablets — 125 mg. (200,000 units)
Syncillin for Oral Solution — 60 ml. bottles — when reconstituted, 125 mg. (200,000 units) per 5 ml.
Syncillin Pediatric Drops — 1.5 Gm. bottles. Calibrated dropper delivers 125 mg. (200,000 units)

Complete information on indications, dosage and precautions is included in the circular accompanying each package.

BRISTOL LABORATORIES, SYRACUSE, NEW YORK



Actual case summary from the files of Bristol Laboratories' Medical Department

ACUTE TONSILLITIS

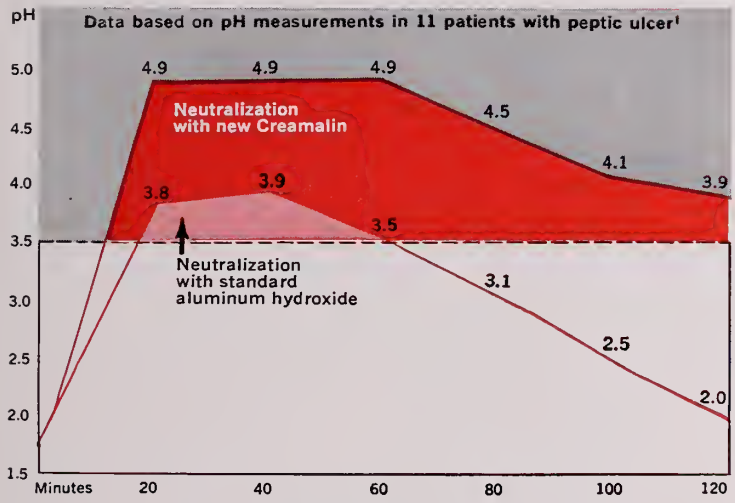
SYNCILLIN®
250 mg. q.i.d. — 5 days

B.G. 9-year-old, white male. First seen Aug. 11, 1959 with acute tonsillitis. Illness of 3 days' duration. Beta hemolytic streptococcus extremely sensitive to SYNCILLIN cultured from the throat. Patient started on SYNCILLIN — 250 mg. q.i.d. After 5 days, the infection appeared cured and the antibiotic was discontinued. No subjective or objective evidence of side reactions.

At the site of peptic ulcer



Following determination of basal secretion, intragastric pH was continuously determined by means of frequent readings over a two-hour period.



neutralization is much faster and twice as long with

New CREAMALIN® ANTACID TABLETS

New proof in vivo[1] of the much greater efficacy of new Creamalin tablets over standard aluminum hydroxide has now been obtained. Results of comparative tests on patients with peptic ulcer, measured by an intragastric pH electrode, show that new Creamalin neutralizes acid from 40 to 65 per cent faster than the standard preparation. This neutralization (pH 3.5 or above) is maintained for approximately one hour longer.

New Creamalin provides virtually the same effects as a liquid antacid[2] with the convenience of a tablet.

Nonconstipating and pleasant-tasting, new Creamalin antacid tablets will not produce "acid rebound" or alkalosis.

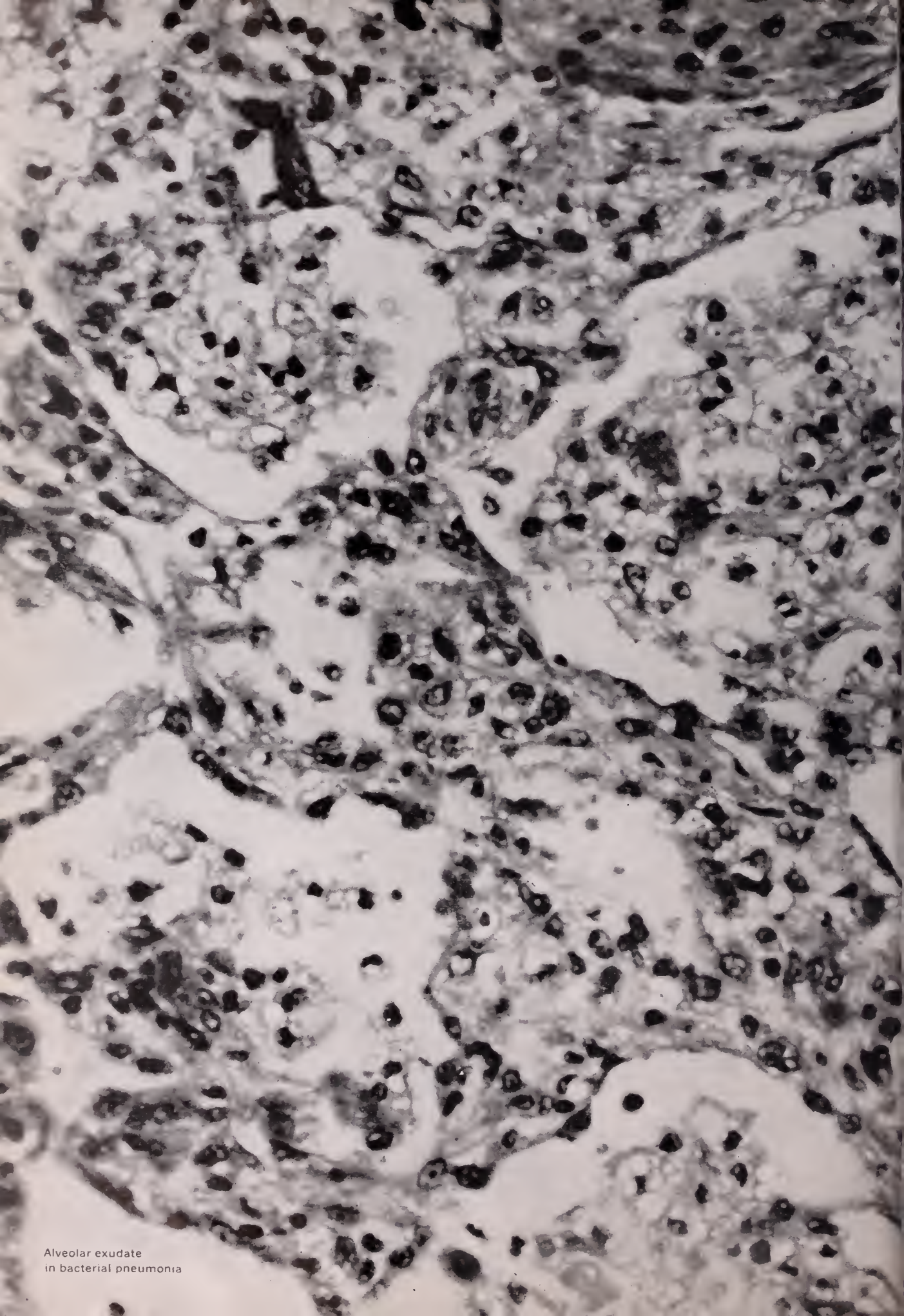
Each new Creamalin antacid tablet contains 320 mg. of specially processed, highly reactive, short polymer dried aluminum hydroxide gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles of the powder offer a vastly increased surface area for quicker and more complete acid neutralization.

Dosage: Gastric hyperacidity — from 2 to 4 tablets as necessary. Peptic ulcer or gastritis — from 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed whole with water or milk, or allowed to dissolve in the mouth. **How supplied:** Bottles of 50, 100, 200 and 1000.

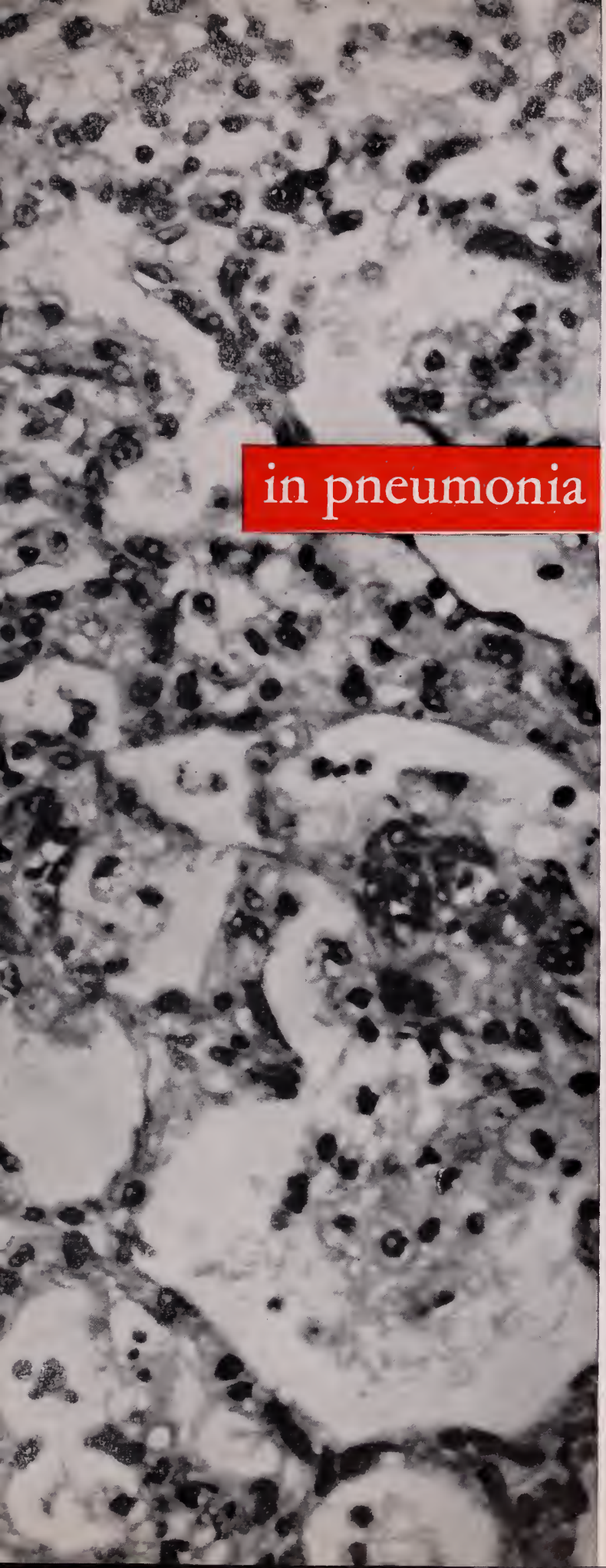
1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:384, July, 1959.

Winthrop LABORATORIES
New York 18, N. Y.

for peptic ulcer ■ gastritis ■ gastric hyperacidity



Alveolar exudate
in bacterial pneumonia



Therapeutic confidence

Panalba is effective against more than 30 commonly encountered pathogens including staphylococci resistant to other antibiotics. Right from the start, prescribing it gives you a high degree of assurance of obtaining the desired anti-infective action in this as in a wide variety of bacterial diseases.

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

*Trademark. Reg. U. S. Pat. Off.

The Upjohn Com
Kalamazoo, Mich

Upjohn

Panalba*

your broad-spectrum antibiotic of *first* resort

for relief from the total cold syndrome...



Tussagesic*

timed-release tablets/suspension

Each Tussagesic timed-release Tablet provides:

TRIAMINIC®	50 mg.
DORMETHAN (brand of dextromethorphan HBr)	30 mg.
TERPIN HYDRATE	180 mg.
APAP (acetaminophen)	325 mg.

Dosage: *Adults and children over 12* – one tablet in the morning, midafternoon and at bedtime. Each tablet should be swallowed whole to preserve the timed-release action.

Each tsp. (5 ml.) of Tussagesic Suspension provides:

TRIAMINIC®	25 mg.
DORMETHAN (brand of dextromethorphan HBr)	15 mg.
TERPIN HYDRATE	90 mg.
APAP (acetaminophen)	120 mg.

Tussagesic Suspension is especially suited for children and for adults who prefer liquid medication; it is pleasantly flavored, non-narcotic and non-alcoholic.

Dosage (to be taken every 3 or 4 hours): *Adults and children over 12* – 1 or 2 tsp.; *Children 6 to 12* – 1 tsp.; *Children 1 to 6* – ½ tsp.; *Children under 1* – ¼ tsp.

TRADEMARK

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

UNSURPASSED "GENERAL-PURPOSE" CORTICOSTEROID . . .

Aristocort®

Triamcinolone LEDERLE

OUTSTANDING FOR "SPECIAL-PURPOSE" THERAPY

Lederle

for "specia

when consid



unsurpassed "general pu

Artsdon

Aristocort

Triamcinolone has long since proved its unsurpassed efficacy and relative safety in the therapy of *rheumatoid arthritis, inflammatory and allergic dermatoses, bronchial asthma,* and all other conditions in which corticosteroids are indicated. But ARISTOCORT has also opened up new areas of therapy for selected patients who otherwise could not be given corticosteroids. Medicine is now in an era of "special-purpose" steroids.[1]

One outstanding advantage of triamcinolone is that it rarely produces edema and sodium retention.[1,2]

The clinical importance of this property cannot be overemphasized in treating certain types of patients. McGavack and associates[3] have reported the beneficial results with ARISTOCORT in patients with existing or impending cardiac failure, and those with obesity associated with lymphedema. Triamcinolone, in contrast to most other steroids, is not contraindicated in the presence of edema or impending cardiac decompensation.[3]

Hollander[1] points out the superiority of triamcinolone in not causing mental stimulation, increased appetite and weight gain, compared to other steroids which produce these effects in varying degrees. And McGavack,[2] in a comparative tabulation of steroid side effects, indicates that triamcinolone does not produce the increased appetite, insomnia, and psychic disturbances associated with other newer steroids.

ARISTOCORT can thus be advantageous for patients requiring corticosteroids whose appetites should not be stimulated, and for those who are already overweight or should not gain weight. Likewise, ARISTOCORT is suitable for the many patients with emotional and nervous disorders who should not be subjected to psychic stimulation. Furthermore, ARISTOCORT Triamcinolone, in effective doses, showed a low incidence of side reactions and is a steroid of choice for treating the older patient in whom salt and water retention may cause serious damage.[2]

References: 1. Hollander, J. L.: *J.A.M.A.* 172:306 (Jan. 23) 1960. 2. McGavack, T. H.: *Nebraska M. J.* 44:377 (Aug.) 1959. 3. McGavack, T. H.; Kao, K. Y. T.; Leake, D. A.; Bauer, H. G., and Berger, H. E.: *Am. J. M. Sc.* 236:720 (Dec.) 1958.

Precautions: Collateral hormonal effects generally associated with corticosteroids may be induced. These include Cushingoid manifestations and muscle weakness. However, sodium and potassium retention, edema, weight gain, psychic aberration and hypertension are exceedingly rare. Dosage should be individualized and kept at the lowest level needed to control symptoms. It should not exceed 36 mg. daily without potassium supplementation. Drug should not be withdrawn abruptly. Contraindicated in herpes simplex and chicken pox.

Supplied: Scored tablets—1 mg. (yellow); 2 mg. (pink); 4 mg. (white); 16 mg. (white).

Lederle

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

"I'm sending this urine specimen from the patient with pyelitis to the lab. What'll I order while I'm waiting for the findings?"

"I'd use AZOTREX. The azo dye will give her quick symptomatic relief. The sulfa-tetracycline combination is likely to hit the common urinary pathogens. If she doesn't respond, then switch to something else when you get the sensitivity data."



Azotrex®

Each AZOTREX capsule contains: TETREX® (tetracycline phosphate complex) equivalent to tetracycline HCl activity... 125 mg.; sulfamethizole... 250 mg.; phenylazo-diamino-pyridine HCl... 50 mg.
Supply: Bottles of 24 and 100.

BRISTOL LABORATORIES
Div. of Bristol-Myers Co.
SYRACUSE, NEW YORK

BRISTOL™

In active people who won't take time to eat properly, MYADEC can help prevent deficiencies by providing comprehensive vitamin-mineral support. Just one capsule a day supplies therapeutic doses of 9 important vitamins plus significant quantities of 11 essential minerals and trace elements. MYADEC is also valuable in vitamin depletion and stress states, in convalescence, in chronic disorders, in patients on salt-restricted diets, or wherever therapeutic vitamin-mineral supplementation is indicated.

Each MYADEC Capsule contains: VITAMINS: Vitamin B_{12} crystalline—5 mcg.; Vitamin B_2 (riboflavin)—10 mg.; Vitamin B_6 (pyridoxine hydrochloride)—2 mg.; Vitamin B_1 mononitrate—10 mg.; Nicotinamide (niacinamide)—100 mg.; Vitamin C (ascorbic acid)—150 mg.; Vitamin A—(7.5 mg.) 25,000 units; Vitamin D—(25 mcg.) 1,000 units; Vitamin E (d-alpha-tocopheryl acetate concentrate)—5 I.U. MINERALS: (as inorganic salts) Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg. Bottles of 30, 100 and 250.

a quick "bite"...
then back
to the grind?
nutritional
deficiency's
not far behind.
prescribe...

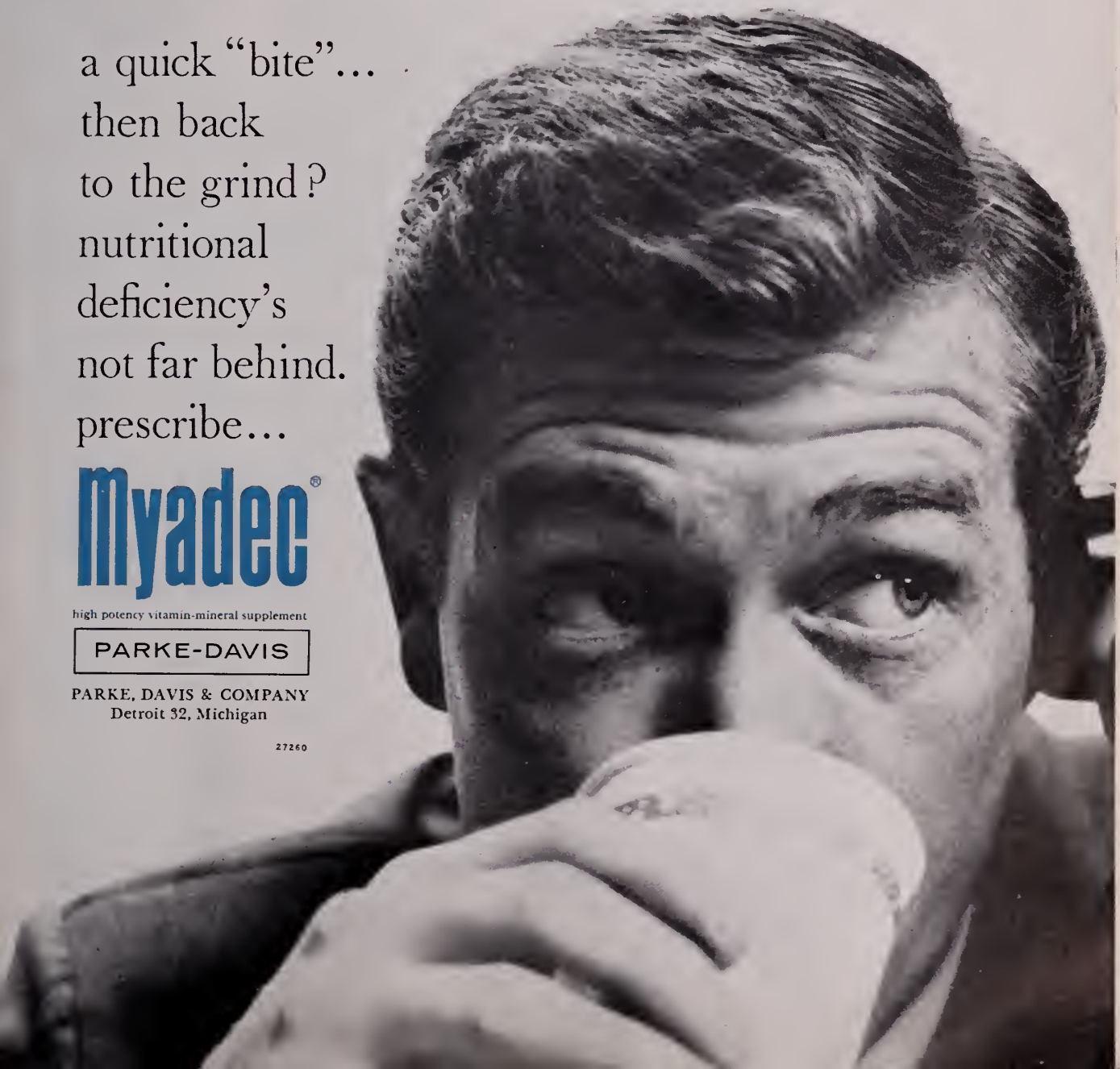
Myadec®

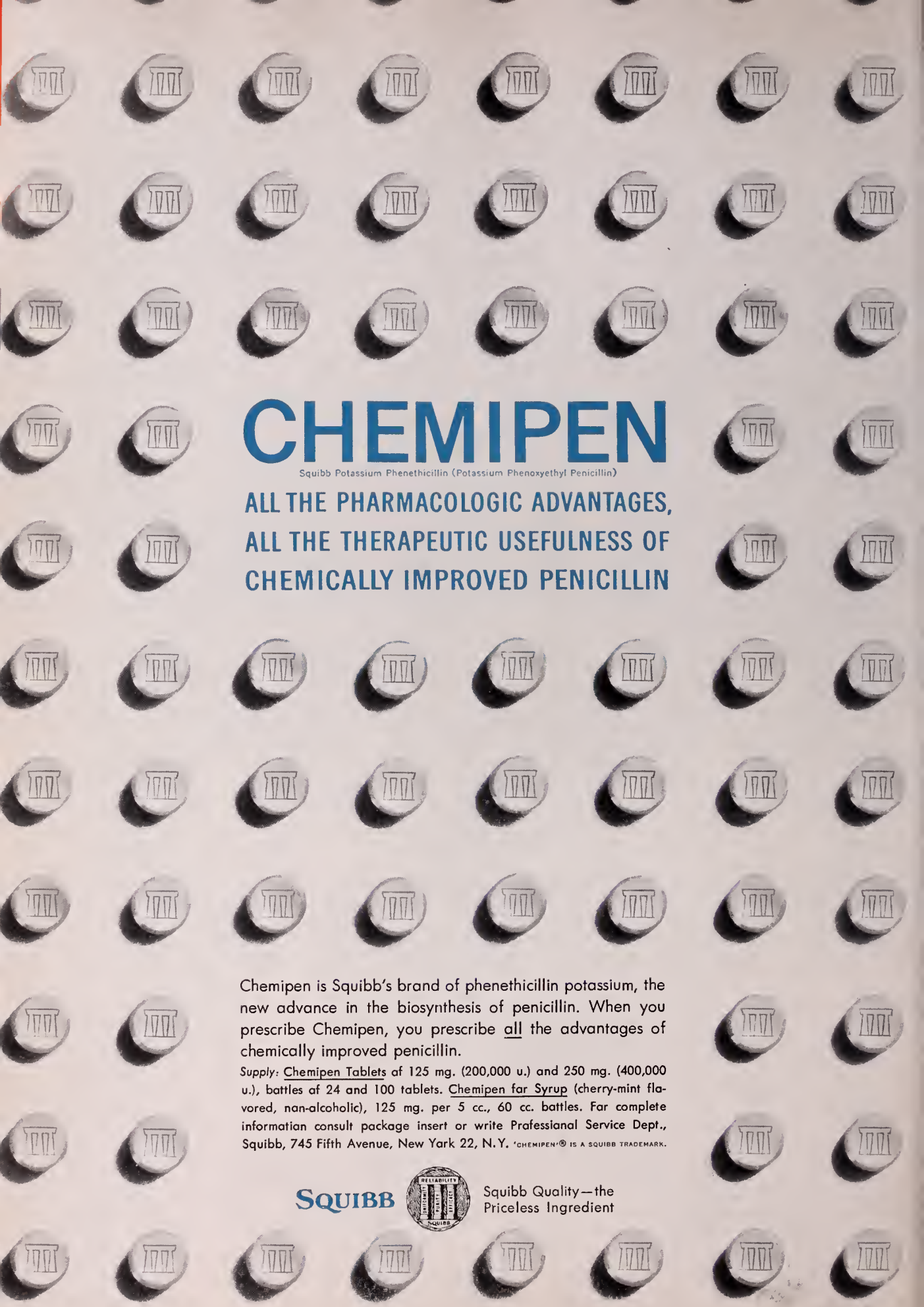
high potency vitamin-mineral supplement

PARKE-DAVIS

PARKE, DAVIS & COMPANY
Detroit 32, Michigan

27260





CHEMIPEN

Squibb Potassium Phenethicillin (Potassium Phenoxyethyl Penicillin)

ALL THE PHARMACOLOGIC ADVANTAGES, ALL THE THERAPEUTIC USEFULNESS OF CHEMICALLY IMPROVED PENICILLIN

Chemipen is Squibb's brand of phenethicillin potassium, the new advance in the biosynthesis of penicillin. When you prescribe Chemipen, you prescribe all the advantages of chemically improved penicillin.

Supply: Chemipen Tablets of 125 mg. (200,000 u.) and 250 mg. (400,000 u.), battles of 24 and 100 tablets. Chemipen for Syrup (cherry-mint flavored, nan-alcoholic), 125 mg. per 5 cc., 60 cc. battles. For complete informatian consult package insert or write Prafessianal Service Dept., Squibb, 745 Fifth Avenue, New York 22, N.Y. 'CHEMIPEN'® IS A SQUIBB TRADEMARK.

SQUIBB

Squibb Quality—the Priceless Ingredient



Lifts depression...as it calms anxiety!

Smooth, balanced action lifts depression as it calms anxiety...rapidly and safely

Balances the mood – no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient – *they often aggravate anxiety and tension.*

And although amphetamine-barbiturate combinations may counteract excessive stimulation – *they often deepen depression.*

In contrast to such "seesaw" effects, Deprol's smooth, *balanced* action lifts depression as it calms anxiety – both at the same time.

Acts swiftly – the patient often feels better, sleeps better, within a few days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly – often within a few days. Thus, the expense to the patient of long-term drug therapy can be avoided.

Acts safely – no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function – frequently reported with other antidepressant drugs.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate. **Supplied:** Bottles of 50 light-pink, scored tablets. Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES / *Cranbury, N. J.*

CD-2839

Your phone call will bring us running...



Top notch service is a primary essential of a good insurance program.

Through your

Oklahoma State Medical Association Disability Income Insurance Program

you have available just such a service.

We are proud of our good reputation of prompt, efficient service to our policyholders.

If we can be of help to you give us a "call" — service is on its way!

The Since 1886

NORTH AMERICAN COMPANY

For Life, Accident and Health Insurance

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more than 73% of the people in Oklahoma who die... DO NOT HAVE WILLS

This is an appalling vital statistic . . . particularly when you consider the consequences. It's possible for your entire estate to be seriously jeopardized should you die without a will.

For your family's sake, isn't it time you make a will? See your lawyer soon . . . and then for your own peace of mind, talk with a First National Bank Trust Officer about handling your estate.

Call CEntral 6-1531 and ask for a Trust Officer to arrange a confidential discussion, without obligation, of course.

CAPITAL FUNDS OVER $37,000,000
LARGEST IN OKLAHOMA

THE FIRST
NATIONAL BANK AND TRUST COMPANY
OF OKLAHOMA CITY

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

February 28, March 1, 2 and 3, 1961

Palmer House, Chicago

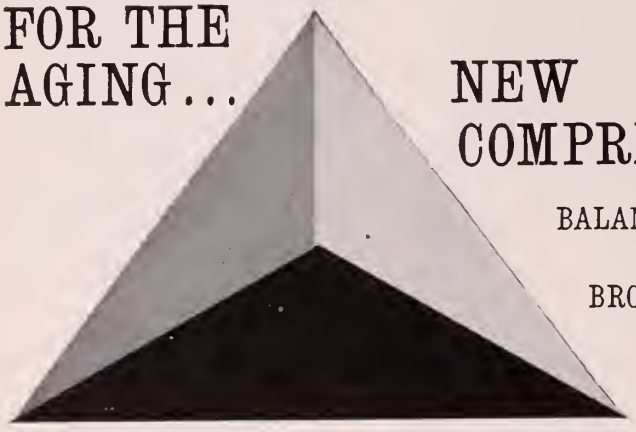
Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

PANELS ON TIMELY TOPICS
MEDICAL COLOR TELECASTS
TEACHING DEMONSTRATIONS
INSTRUCTIONAL COURSES

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservations at the Palmer House.

FOR THE AGING...



NEW COMPREHENSIVE SUPPORT

BALANCED HORMONE SUPPLEMENTATION

▲

BROAD NUTRITIONAL REINFORCEMENT

▲

MOOD ELEVATION

NEW

1 small capsule every morning

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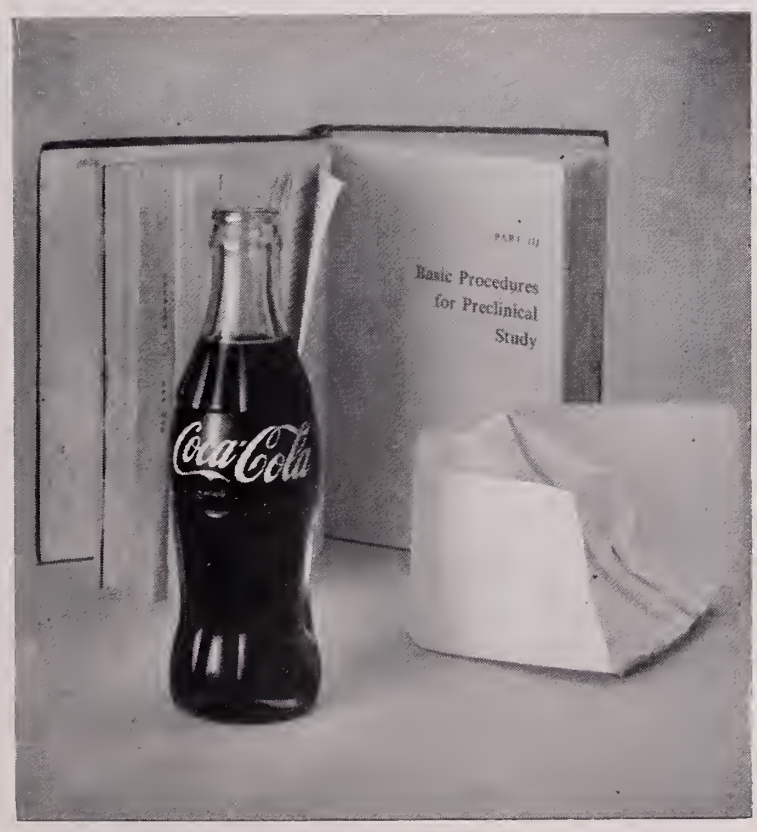
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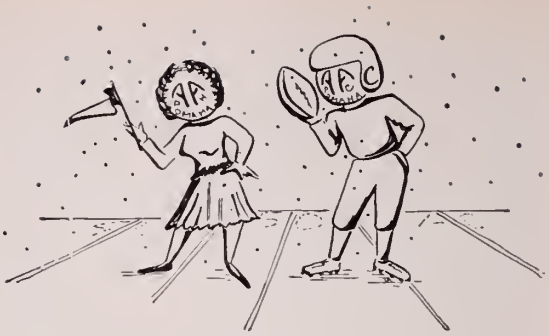
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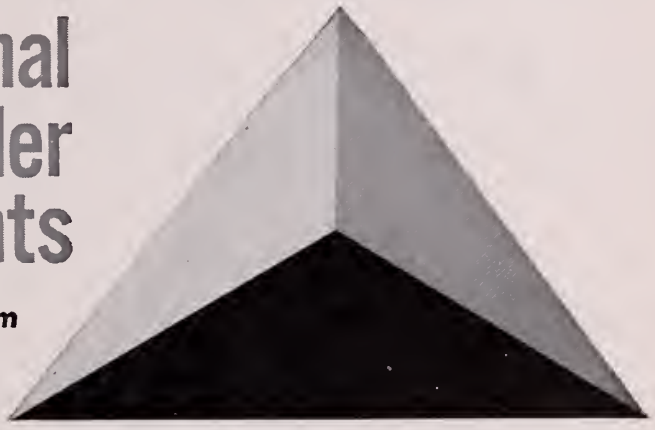
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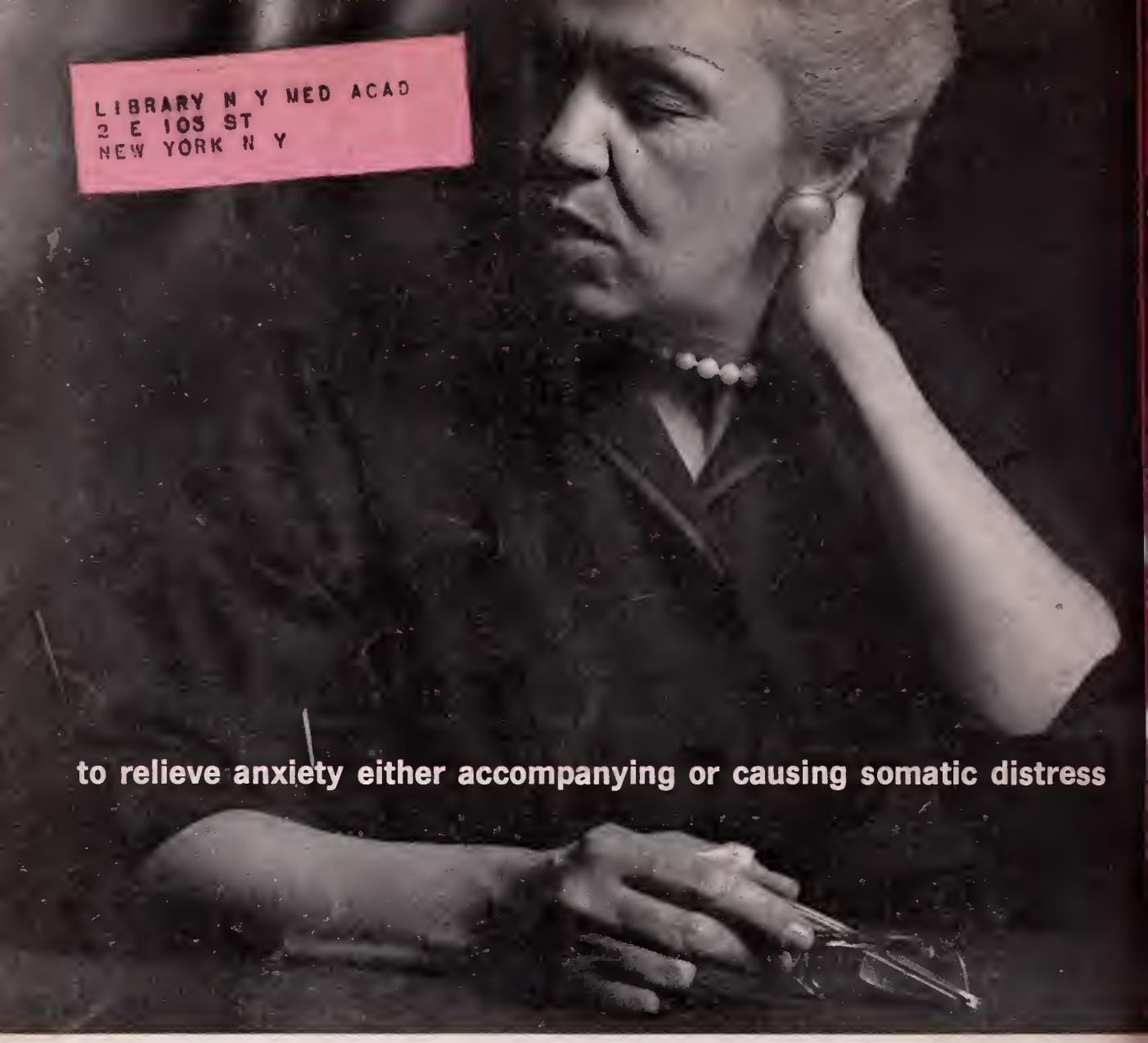
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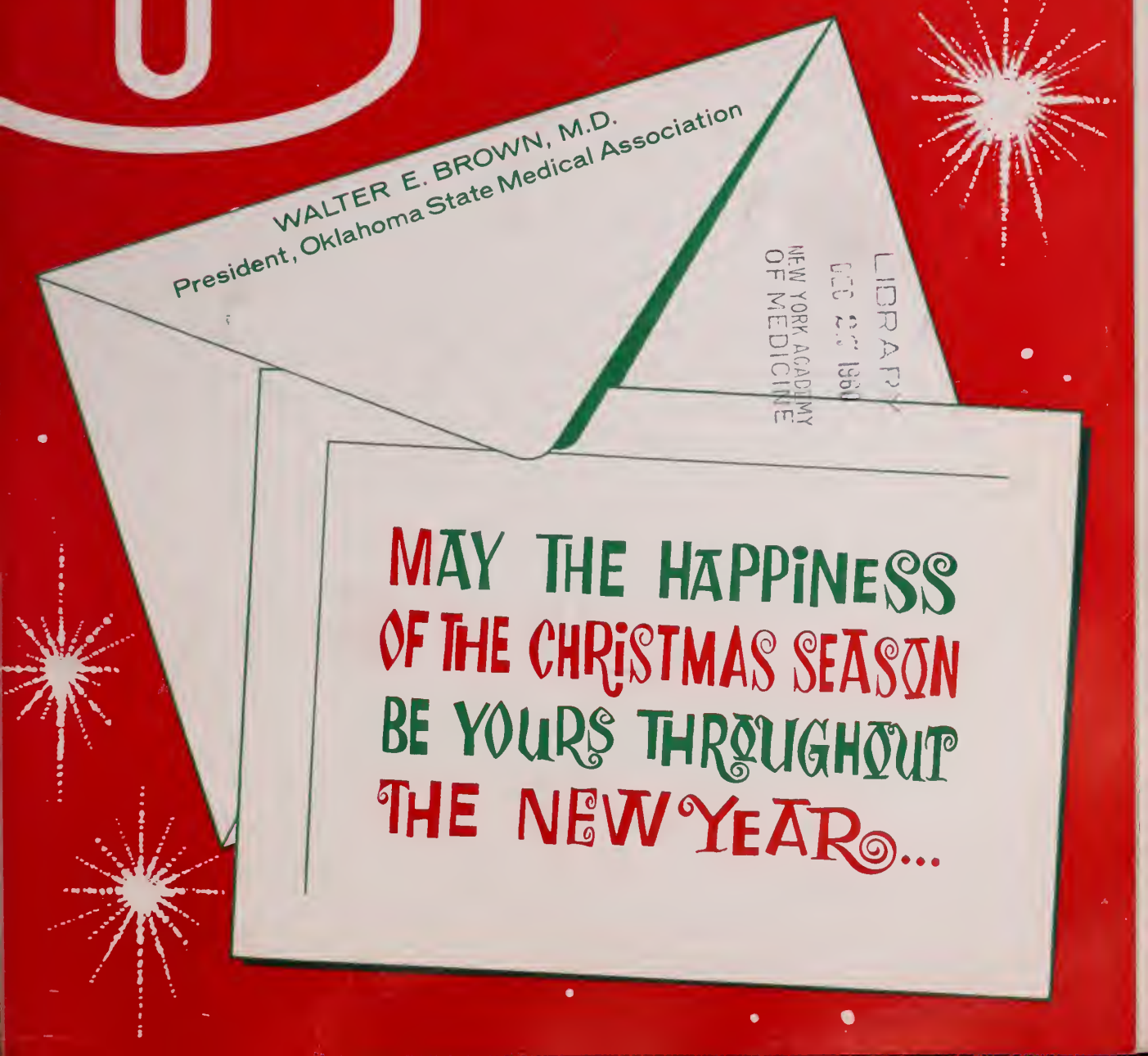
1. Marx, F.J., in *Trifluoperazine: Further Clinical and Laboratory Studies*, Philadelphia, Lea & Febiger, 1959, p. 89.
2. Winkelman, N.W., Jr.: *ibid.*, p. 78.

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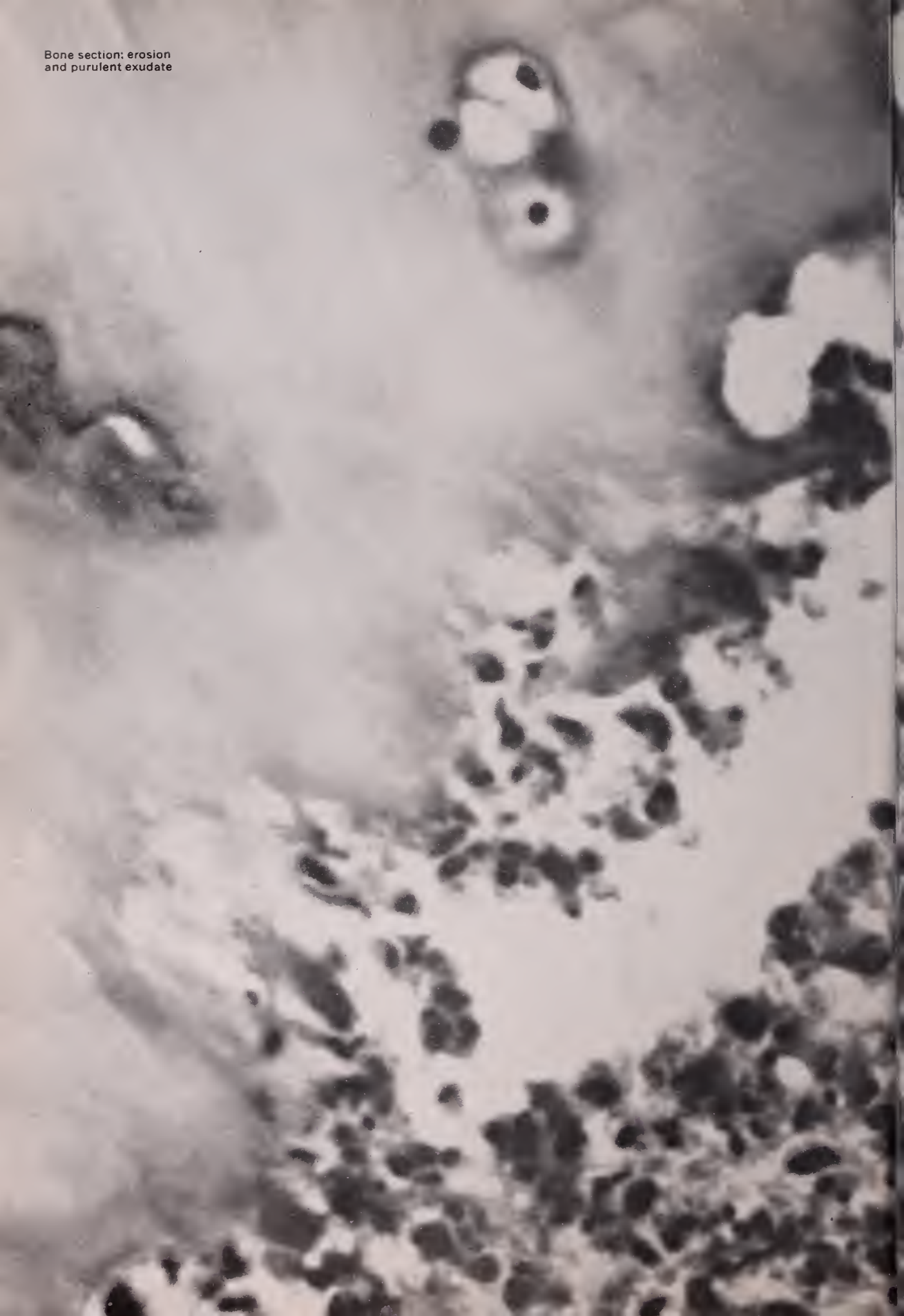
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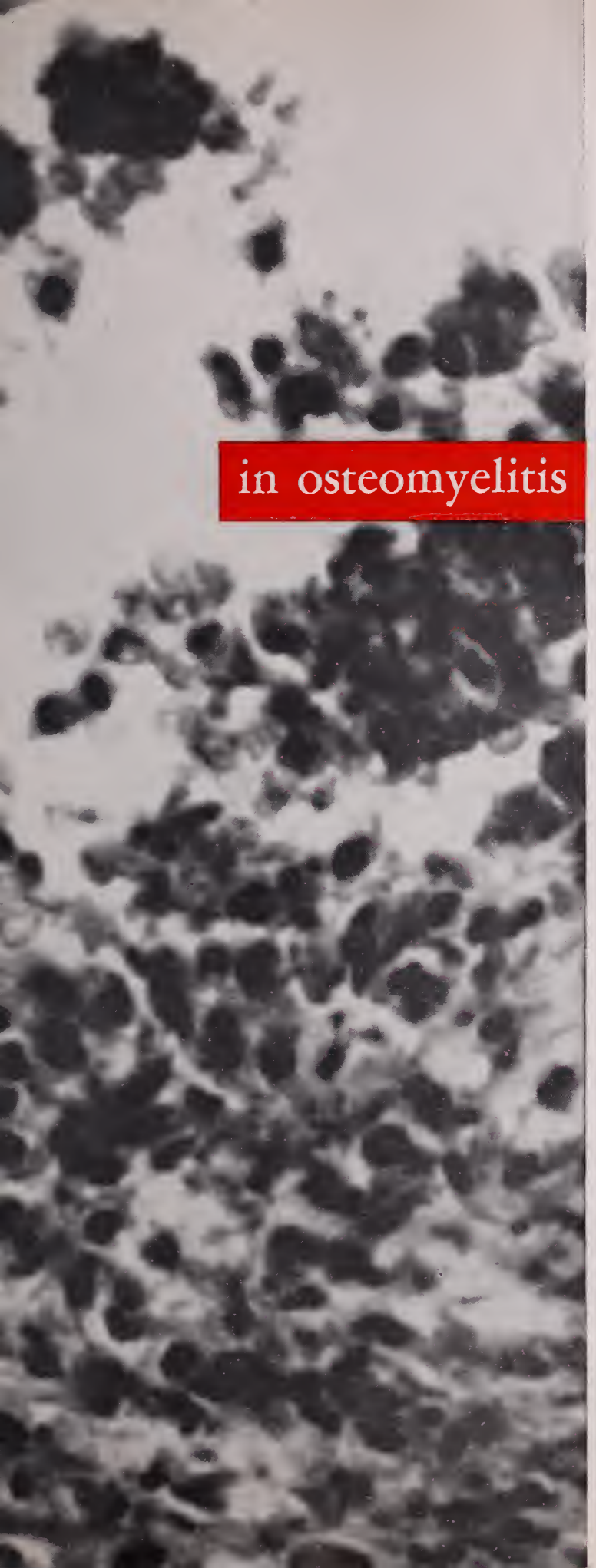
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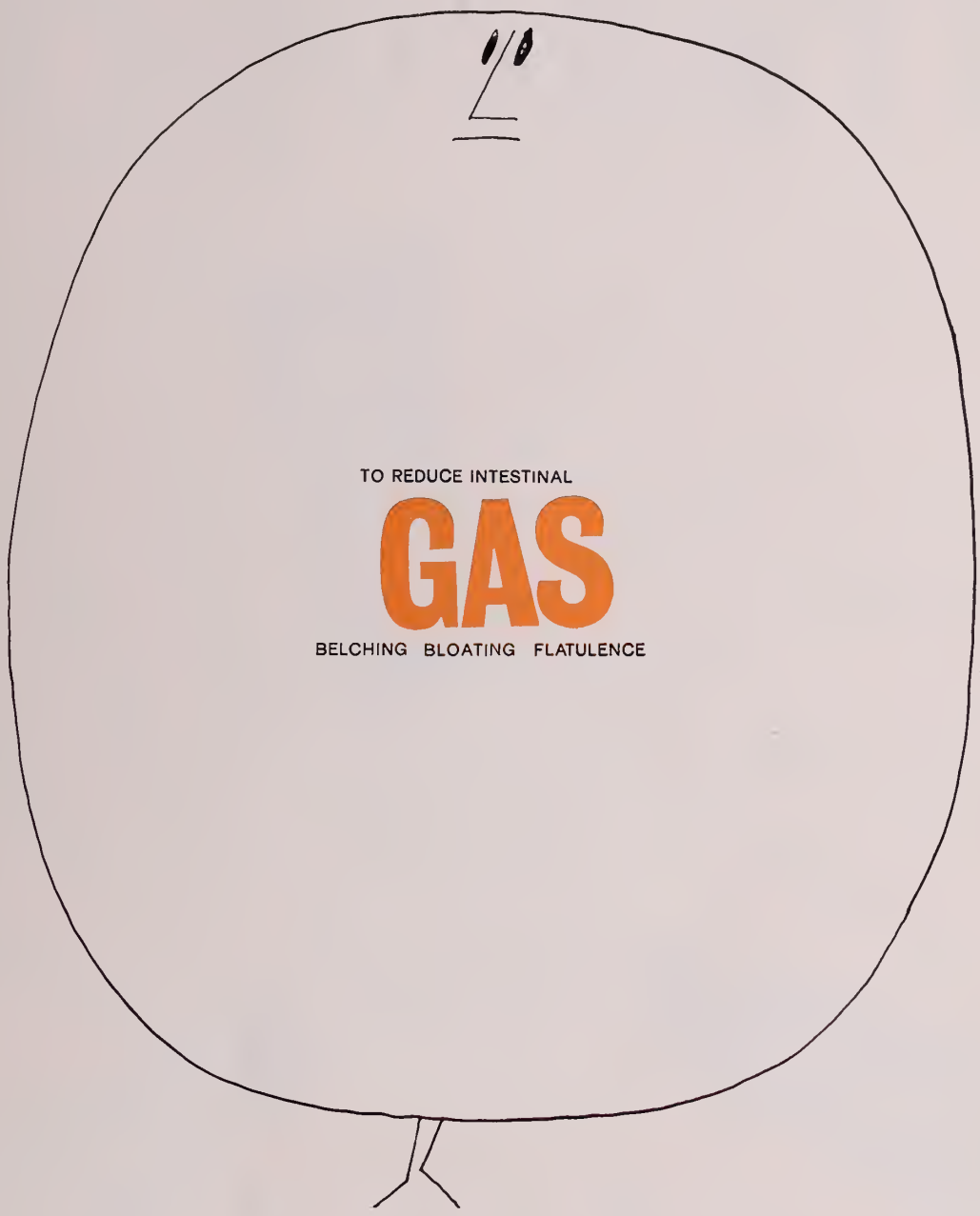
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Dosage

The usual adult dosage is 2 Trancoprin tablets three or four times daily. The dosage for children from 5 to 12 years of age is 1 tablet three or four times daily. Trancoprin is so well tolerated that it may be taken on an empty stomach for quickest effect. The relief of symptoms is apparent in from fifteen to thirty minutes after administration and may last up to six hours or longer.

How Supplied

Each Trancoprin tablet contains 300 mg. (5 grains) of acetylsalicylic acid and 50 mg. of chlormezanone [Trancopal® brand]. Bottles of 100 and 1000.

Trancoprin Tablets / non-narcotic analgesic

References: 1. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 2. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960. 5. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 6. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 7. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 8. Collective Study, Department of Medical Research, Winthrop Laboratories. 9. Hergesheimer, L. H.: An evaluation of a muscle relaxant (Trancopal) alone and with aspirin (Trancoprin) in an industrial medical practice, to be submitted.

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other musculoskeletal disorders

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Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

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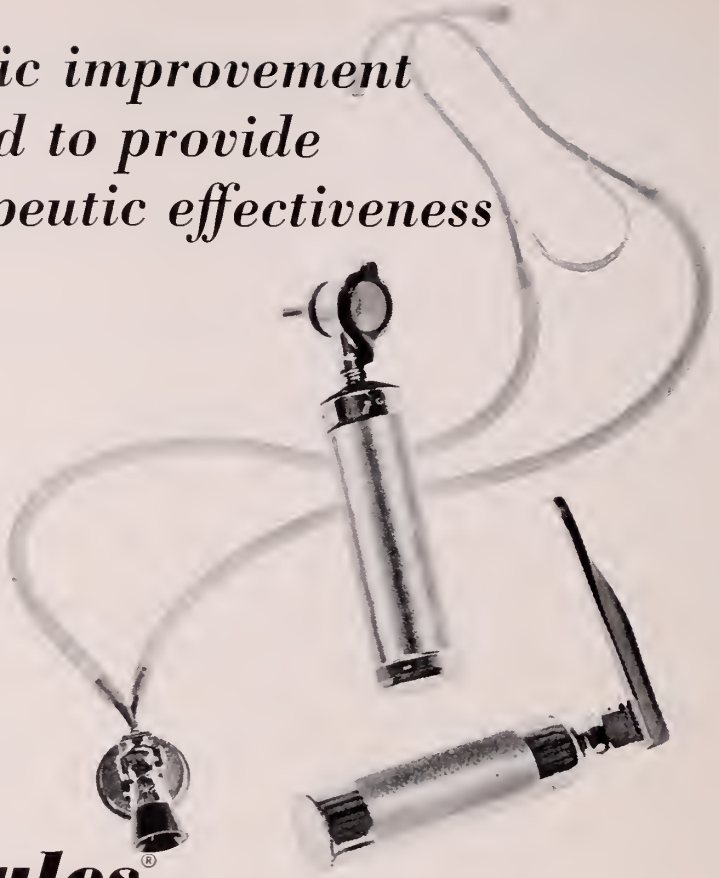
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Editorial

The Internal Medical Audit

Recently a group composed of over two hundred professional personnel representing various departmental heads, hospital administrators, hospital librarians and others, met at Denver, Colorado, to consider the subject of the "Internal Medical Audit."

This meeting was a three-day session sponsored by the Colorado School of Medicine on a post-graduate level and it was the first of its kind developed around such a topic. The agenda of speakers and moderators at this meeting were such experts on hospital administration and organization as Doctor Kenneth B. Babcock, Director of the Joint Commission on Accreditation of Hospitals; Doctor G. Karl Fenn, Director of the Study of Hospital Standards in Medicine, Chicago, Illinois; Doctor Paul R. Hawley, Director of the American College of Surgeons; Doctor Robert S. Myers, Executive Assistant Director, American College of Surgeons; and many others, all well known in the educational and organizational field of medicine.

The idea of a medical audit is not new. The well known tissue committee which functions in every well organized hospital is an audit committee. This committee determines by a review of the hospital records whether there is sufficient justification for the removal of the normal tissue which compose a certain percentage of tissue sent to the laboratory from hospital operations. If such tissue has been unjustifiably removed it would indicate bad surgical judgment is being exercised on the part of the surgeons involved.

However, the kind of audit committee as discussed at this meeting functions on a broader scale than that of a regular tissue committee. This group would examine the hospital records of patients admitted with certain disease conditions to determine whether the quality of care given for their clinical management was up to an acceptable standard; the standard being set as to what the committee agrees is good clinical practice for that particular disease condition. Deviations as to what the committee considers as generally acceptable clinical practice methods would merit not only conference with the doctor involved but possibly would be referred to the department or staff for subsequent conference for correction.

The Committee

How is an internal audit committee organized and how does it function? It is a group composed entirely of active staff members and possibly a few others, such as hospital librarians who may be helpful in providing technical assistance for a review of the records. No outside personnel is involved in a hospital audit, nor does an individual doctor ever audit his own records. It is primarily an objective, critical survey of hospital records to evaluate and appraise the quality of clinical practice that obtains in a hospital.

The committee acts only as a fact-finding group for the staff, it does not attempt a review of everything on a clinical record, and tends to limit its examination of the records to finding an answer to one or more hypothetical questions asked about the particulars of hospital management for those disease conditions of which they are auditing. For example: is antibiotic therapy used carelessly in certain disease conditions; or is the laboratory being over-utilized; or are there not enough laboratory tests to properly manage certain diseases?

Suppose from the review of the records the committee finds that wrong method of treatment, poor clinical judgment, or even actual mismanagement is demonstrable among a few physicians of the staff prac-

ticing in that hospital, what then? The committee will first confer with the doctor about the problem and afterwards may refer these facts in question to the staff or even the hospital board for what corrective measures they see fit to impose. It must be emphasized that an audit committee never serves as a punitive group, it is primarily educative. Its only objective is to improve the quality of medical practice.

The Responsibilty of the Hospital Staff

Does a hospital staff have the responsibility to be critical of their fellow staff members? Most physicians will undoubtedly agree that it has this responsibility to the profession as well as the community. A hospital interested in maintaining a high quality of clinical work must function somewhat as its "brother's keeper," for a staff which permits wrong or poor practices to continue in a hospital is definitely open to public censure.

Specifically, how does such an audit committee go about its work of reviewing the records? The best example is in the use of antibiotics as they are sometimes carelessly prescribed for certain disease conditions. It is generally agreed by most physicians that antibiotics used for prophylaxis against infection in clean and uncomplicated surgical wounds as it prevails in inguinal herniorrhaphies is not good medical practice. If the audit committee finds from a review of a series of inguinal herniorrhaphies that antibiotics are so being used, that is subject material for departmental or staff conferences for its correction. Usually, the doctor involved when confronted with the facts obtained from the audit committee will cease or change his practices to conform to the general opinion as to what constitutes good clinical work in the hospital. It is a rare physician who flaunts the general medical opinion as to what constitutes good medical practice.

The Scope

Medical audit committees meet at regular intervals throughout the year. One month they may audit inguinal herniorrhaphies, the next it may be coronary occlusions, and the following month a certain gynecological procedure; or, it may even be the use of laboratory tests, such as blood sugars, urinalyses; or, blood counts. A suitable field for the committee to examine is the recorded indications for blood transfusions often given in the hospitals. There is no limit to the field of clinical practice in the hospital to be covered by internal medical audits.

The internal medical audit committee not only will upgrade the quality of clinical work by continuous and repeated auditing of records in the hospital but its work will inevitably improve the quality of clinical records. The doctors who serve on the audit committee tend to see the value of good written records and particularly when they know that their colleagues may critically examine their records.

Professional Activity Study—PAS

There is an organization to aid hospitals in making medical audits easier. It is a nonprofit group sponsored by the American College of Physicians, American College of Surgeons, American Hospital Association, and Southwestern Michigan Hospital Council and is under the direction of Doctor Virgil N. Slee. This group was organized in 1952 and was financed by the Kellogg Foundation for the objective of developing better auditing methods for clinical practice in hospitals.

The organization is called PAS—Professional Activity Study. Since 1952 it has functioned and approximately 150 member hospitals are served by this commission. At the present time about 1,350,000 patients' records are filed in the commission's library.

Case abstracting in the PAS plan requires about five minutes per clinical record and costs members 25 cents per abstract. When PAS is started in a hospital the commission instructs the hospital librarian in the technique of abstracting records for their subsequent codefication and filing in the commission's office at Ann Arbor, Michigan. After codefication PAS will then give to any member hospital a summarization of their records as requested. In addition, PAS will send the hospital comparative studies of clinical practice in other hospitals to guide mem-

bers as to subsequent audits. Because PAS service supplies all the basic statistical studies necessary for the hospital, it actually saves the hospital clerical expenses in the long run.

The presence of an active internal medical audit committee in a hospital will be an important asset to the hospital to justify continued accreditation of the hospital in the future. Future accreditations may be based a great deal upon how effective a hospital audit committee is functioning. A hospital that does not critically appraise its staff work through an audit committee will find it difficult to demonstrate to the accreditation committee they are maintaining the best of hospital standards for good clinical care.

With the approach of more and more socialization in the practice of medicine, audits of hospital records will become more and more important, for it stands to reason if a third party begins to exercise more authority in the field of health care, medical audits of clinical procedures will become necessary. If a staff then does not audit its own hospital work, a third party will take over the responsibility. And if a staff permits a third party to audit how they practice medicine, they will have no one but themselves to blame when they lose their freedom in the practice of medicine. An Internal Medical Audit Committee in a hospital is an important safeguard to prevent this loss of freedom. *Don W. Branham, M.D.*

Physician's Prayer

Thank God for Christmas. On this night
Heaven's radiant star from long ago
Bespeaks God's gift to earth below.
No man-made moon or satellite
Dims its celestial glow.

Thank God for wisdom. Help me hold
Fast to the verities that bind
All new conceptions of the mind
With judgment of the proven old—
That I may help mankind.

Thank God for faith. Let me not doubt
That by Thy will, electrons seethe
And man controls the air we breathe.
Pray Lord, sieve clouds of rank fallout—
Lest every mortal grieve.

Thank God for skill. My soul would weep
If by my rough, untutored try
A helpless child should sound a cry,
Or man in anguish should not sleep—
Or new-born babe should die.

Thank God for love. God's medicine!
When nations threat of bloody wars
Pray by some secret of the stars
That rulers find self-discipline—
And love shall heal the scars.

Marjorie Howard

Scientific Articles

A Football Camp Outbreak of Aseptic Meningitis Due to Echo 9 Virus

CHARLES E. GREEN, M.D.

F. R. HASSLER, M.D., M.P.H.

Since graduating from Indiana University School of Medicine in 1942, Charles E. Green, M.D., has been certified by the American Board of Pediatrics. In addition to his private practice in Lawton, Oklahoma, Doctor Green is visiting lecturer in Pediatrics at the University of Oklahoma School of Medicine. He has been the physician for Lawton High School Athletic teams for the past twelve years.

Doctor Green is a member of the American Academy of Pediatrics as well as the Oklahoma Chapter of the group.

F. R. Hassler, M.D., M.P.H., received his M.D., degree from the University of Oklahoma School of Medicine in 1937 and his Master of Public Health from Johns Hopkins in 1941. He is certified by the American Board of Preventive Medicine and Public Health and is serving as Director of the Division of Laboratories at the Oklahoma State Department of Health.

He is a Fellow of the American Public Health Association, a member of the Board of Directors of the Oklahoma State Tuberculosis Association, and a Consultant to the U.S. Public Health Service on Serologic tests for Syphilis and Drinking Water.

ON AUGUST 25, 1959, the Lawton High-school football team opened camp at Ft. Sill, Oklahoma, with ninety boys in attendance. All of these boys had been examined and checked by a team of physicians from the Comanche County Medical Society.

Three days later, August 28, two boys left camp because of illness. Chief complaints were fever, anorexia, nausea and vomiting. The next morning six boys were unable to report for practice because of headache, fever and nausea.

The camp was terminated at noon on August 29 and the boys returned to their homes in Lawton. Saturday night and Sunday (August 29 and 30) the team physician received calls from seventeen boys who were also complaining of severe headache, malaise, stiff neck, fever, nausea and vomiting. Two of the boys were hospitalized at Ft. Sill Station Hospital and one at the Southwestern Hospital in Lawton.

Synopsis of the Hospital Records on These Cases

Case I. R.O.C., Jr.—White, male, age 16, hospitalized at Ft. Sill. This patient was admitted August 31, 1959, discharged September 8, 1959. This patient had been ill six days prior to entry and the chief complaints were headache, backache, chills and fever. He had sustained some minor type of back injury during football scrimmage at the onset of his present illness. Low grade fever was noted two or three days before admission and on the night before, headache and fever became more prominent. He denied other symptoms. On admission his blood pressure was 110/60, temperature 100.2, pulse 72 and weight 143 pounds. His neck was stiff and generalized lymphadeno-

pathy was noted. There was a rash almost too faint to be seen over the thorax. No specific neurologic signs were elicited. Cerebro-spinal fluid under normal pressure contained 125 lymphocytes per cubic millimeter. The CSF total protein was 29 mg%. The remainder of the laboratory data was within the limits of normal (hemogram, urinalysis, CSF sugar, smears and culture of spinal fluid). During the three days following admission, he spiked a fever daily to about 103° and thereafter it decreased to within normal limits. While febrile, the patient was uncomfortable and continued to complain of headache and pain in the back. During hospitalization the patient was treated with analgesics only and was discharged asymtomatic. It was thought that the patient had acute meningitis, probably of viral origin.

Case #2. R.E.D.—White, male, age 15, hospitalized at Ft. Sill Hospital, admitted September 7 and discharged September 12, 1959. He had been mildly ill for eight days prior to admission. During this time he had received two immunizations by injection. Two days before entry he had had some vesicles which had crusted just prior to the onset of severe headache. He became febrile, anorexic, and began to vomit during the day prior to admission. Upon entry the physical examination revealed a moderately injected pharynx, a markedly stiff neck, no specific neurologic signs and the remainder of the examination was without note. A lumbar puncture performed at the time of admission revealed 49 lymphocytes per cubic millimeter and a total protein of 84.4 mg%. The urinalysis and hemogram were within normal limits. A smear and culture of the spinal fluid were negative. During the first three days of hospitalization, the patient's temperature declined to normal, and his severe headache disappeared. The patient was discharged asymptomatic. It was thought that he had acute meningitis, probably of viral origin.

Case #3. W.L.—White, male, age 15, hospitalized at Southwestern Hospital, Lawton, admitted September 1, 1959 and discharged September 4, 1959. The history of this patient was very similar to the other two who had been admitted to the Ft. Sill Hospital. He complained of illness for three days prior to admission. The symptoms were headache, vomiting, malaise and a low grade fever. The laboratory findings were as follows:

Heterophile agglutination—Negative
Urinalysis—Negative
Hemoglobin—14
White blood count—7,800
Lymphocytes—43%
Non-lymphocytes—57%
Hemocrit—42

A virus infection, either due to Coxsackie virus or Echo virus, was suspected and pharyngeal washings were taken on seven of the boys who were ill in their homes. For these washings, approximately one-half ounce of sterile nutrient broth was used as a gargle and these broth specimens were then packed in ice and sent to the Virus Laboratory of the Oklahoma State Department of Health in Oklahoma City.

Inoculations were made in the following tissue cultures: monkey kidney (primary); monkey kidney (continuous); KB; amnion and hela. Suckling mice were also inoculated. A virus was isolated in monkey kidney cells (primary) and in amnion cells on three of the seven patients. Mice inoculated with specimens from these same patients became paralyzed and died.

In an attempt to identify the virus isolated, virus neutralization tests were made, using a number of specific antisera. The virus neutralization test was positive to Echo 9 antisera and the virus was identified as Echo 9. According to the best information we have, Echo 9 is the only Echo virus that will produce paralysis and death in suckling mice. Suckling mice are used primarily for the identification of many types of Coxsackie virus. The Echo 9 virus was isolated and identified from three of the Lawton Highschool football players. These were P.B., R.P. and R.V., white males, 15 and 16 years of age. In general the treatment used was Chloramphenicol, analgesics, fluid and bed rest. The boys were out of school from one week to ten days and were unable to return to football practice for approximately two weeks.

Charles E. Green, M.D.
1202 Arlington, Lawton, Oklahoma

LARYNGEAL CARCINOMA

A Review of 129 Cases*

R. RIGUAL, M.D.
STANTON L. WITTER, B.S.
JOHN W. BARNHILL, M.D.

R. Rigual, M.D., graduated from the University of Oklahoma School of Medicine in 1950 where he is now Assistant Professor in the Department of Otolaryngology. He is certified by the American Board of Otolaryngology.

Doctor Rigual holds memberships in the Academy of Otolaryngology and Ophthalmology, the American Society of Facial Plastic Surgery and the Pan American Association of Otorhinolaryngology and Bronchoesophagology.

Stanton L. Witter, B.S., is a senior medical student at the University of Oklahoma School of Medicine.

John W. Barnhill, M.D., graduated from the University of Oklahoma School of Medicine in 1959. He is now a general medical officer in the U.S. Army, stationed at Fort Hood, Texas.

Doctor Barnhill is a member of the Association of Military Surgeons.

ONE HUNDRED AND TWENTY-NINE cases of laryngeal carcinoma diagnosed by biopsy have been reviewed. The information was obtained from the records of all cases of laryngeal carcinoma admitted to two hospitals during the seventeen year period from August, 1941, to August, 1958. The hospitals were Oklahoma University Hospitals, largely a charity institution, and Wesley Hospital, a private hospital, both located in Oklahoma City, Oklahoma. Forty-two cases were found at Wesley Hospital and 87 at Oklahoma University Hospitals.

The statistical data in this group of patients concerning incidence, smoking habits, drinking habits, occupations, family histories, symptomatology, metastasis, and location of the primary lesion is presented.

An attempt has been made in this review to analyze some of the factors which might affect the prognosis of these patients. Survival times are correlated with presence or absence of metastasis, location of the primary lesion, and various methods of therapy.

Incidence

The incidence of carcinoma of the larynx has been reported to be on the increase. Blatzell and Putney found that this disease has been occurring seven times more frequently in the past ten years than in the previous twenty-five years.[1] Cancer of the larynx comprises approximately 4 per cent of all human malignancies.

Sex, Race, and Age Distribution

In this study, 118, or 91.5 per cent, of the patients were males, giving a ratio of fe-

*From the Department of Otolaryngology, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.
This study was supported by a grant from the National Institutes of Health.

males to males of 1:11.7. The sex distribution reported by other authors varies from 1:9 to 1:13, but all reports show a greater frequency in males.[1,2,3,4,5] Five, or 3.9 per cent, of the cases in this report were Negroes and one was an Indian. The American Cancer Society estimates the corrected frequency in Negroes compared to whites is one Negro case to every 1.5 white cases.

In this study the average age of patients at diagnosis was 60.7 years with a median of 60 years. There was an age range from 35 to 88 years. Other authors confirm the fact that a great majority of cases occur in the fifth, sixth and seventh decade with a median age of 61 years.[1,6]

Smoking Habits

In this study the smoking habits of 60 patients with carcinoma of the larynx were reviewed, and of these 60 patients, eight denied using tobacco in any form. Fifty-two patients admitted using tobacco: five smoked pipes, two smoked cigars, one chewed tobacco, and 44 smoked cigarettes. The 44 who smoked cigarettes consumed an average of 31 cigarettes per day.

Drinking Habits

In this study, 36 patients were questioned as to drinking habits. Twenty patients admitted consuming some quantity of alcohol. Two patients felt they were heavy drinkers, and one patient was a known alcoholic. The others were only occasional or moderate drinkers. Sixteen of the patients questioned denied alcoholic intake.

Occupations

In this study 93 patients were questioned about their occupations. Of the 93, 56 had occupations concerned primarily with working out of doors. (There were 34 farmers, six laborers, and 16 miscellaneous outdoor workers.) The other 37 patients seemed to have a variety of indoor occupations.

Family Histories

Seventy-two patients were questioned as to whether there was a history of cancer in their families. Twenty-seven patients, or 37.5 per cent, had a positive family history of cancer, and one patient's father had had carcinoma of the larynx. The frequency of a positive family history of carcinoma in other groups of patients with carcinoma of the larynx has been reported as 19 per cent and 16.4 per cent by Thompson and Clerf respectively.[7,8]

Histological Type

Of the 129 total cases, all but three cases were confirmed by biopsy at University Hospital or Wesley Hospital. Three cases were previously confirmed at other hospitals by biopsies. Of the 126 patients who had biopsies at Oklahoma University Hospitals or Wesley Hospital, 122 had squamous cell carcinoma, one a mixture of squamous cell and fibrosarcoma, one a mixture of squamous cell and myxomatous tissue, one an adenocarcinoma, and one had a highly undifferentiated and unidentifiable neoplastic growth.

Symptoms

Some of the patients had more than one initial symptom, which accounts for a total greater than 129 in table I below.

Initial Symptom	No. of Patients
Hoarseness	88
Sore Throat	18
Dysphagia	15
"Lump" in Neck	12
Pain	9
Cough	7
Discomfort in Throat	7
Habit of Clearing Throat Prior to Speech	3
Dyspnea	2
Weight Loss	2
Hemoptysis	1
Aphonia	1

Table I. Symptoms.

Hoarseness was the first and only symptom in 27 patients. Hoarseness was noted initially in conjunction with some other symptoms in 23. In 38 cases, hoarseness was noted initially and was followed by other symptoms at a later time.

The duration of symptoms before diagnosis was recorded in 124 of the cases, and the duration ranged from one week to 180 months. The average duration was 15.2 months, and the median duration was 7 months. (See table II for relationship of metastasis to duration of symptoms.)

Metastasis

In this study 55 patients, or 42.6 per cent, had cervical metastasis at the time of diagnosis. Two of these patients were not thought to have metastasis but were treated with prophylactic neck dissections and showed positive nodes. Thirteen patients were treated with radical neck dissections that did not have glandular involvement. Ogura and Bello[9] found seven of 18 patients treated with prophylactic neck dissections to have positive nodes; and Putney[10] reports that 66 per cent of his patients had cervical metastasis, 26 per cent of whom did not have palpable nodes.

In this study metastasis to other than cervical structures at the time of diagnosis was not noted in any case. Fifty-five patients did not have evidence of metastasis at the time of diagnosis. Nineteen patients are reported as having questionable metastasis. This includes patients whose charts were incomplete or not adequate in this regard. It also includes those patients who had palpable cervical nodes that were freely movable, not fixed to surrounding structures, not greatly enlarged, and not hard in consistency.

The following table relates the duration of symptoms to the presence or absence of metastasis at the time of diagnosis.

No. of Patients	Metastasis	Avg. Duration of Symptoms	Median Duration of Symptoms
55	Without metastasis	18.6 months	7.5 months
55	With metastasis	11.5 months	7.0 months
19	Questionable metastasis	17.3 months	5.5 months

Table II. Duration of symptoms related to metastasis.

Metastasis does not seem to be greatly related to the duration of symptoms as noted in table II, except that the group with metastasis seemed to come to the doctor earlier. The incidence of metastasis seems to be more closely related to the site of the primary lesion as noted in table III. The site of the primary lesion is classified according to Walsh.[12] This classification of laryngeal tumors classifies them with relation to anatomical site and extension. Walsh's classification is as follows:

1. *Intrinsic* is a tumor confined to the true vocal cord. The cord must be movable. The tumor may cross the anterior commissure and extend down the opposite cord.

2. *Endolaryngeal* refers to all tumors within the voice box; that is, tumors that involve the ventricle, false cords, and/or fixation of the true cords.

3. *Subglottic* is a primary tumor that arises just beneath the true vocal cord. Such a tumor is extensive when it involves the true vocal cord. A true cord carcinoma that extends supraglottic and/or subglottic is no longer intrinsic.

4. *Extrinsic* is a primary lesion that involves the epiglottis, aryepiglottic fold, or pyriform sinus.

The following table relates metastasis with the location of the primary lesion.

LOCATION	METASTASIS			
	Without	With	Question-able	Total
Intrinsic	28 (70%)	8 (20%)	4 (10%)	40 (31%)
Extrinsic	10 (17%)	40 (68%)	9 (15%)	59 (45.5%)
Subglottic	4 (50%)	2 (25%)	2 (25%)	8 (6.2%)
Endolaryngeal	13 (65%)	5 (30%)	1 (5%)	19 (14.8%)
Not Classified			3	3

Table III. Metastasis related to location of lesion.

Sixty-eight per cent of those with extrinsic carcinoma of the larynx had metastasis at the time of diagnosis. In contrast, only 20 per cent of those with intrinsic carcinoma of the larynx had metastasis at the time of diagnosis.

Three cases were not classified according to their location. All of these had questionable metastasis.

The relationship of the survival of patients after therapy to the site of their primary lesion is presented in the following

Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	1	3	0	3	2	7	16
Dead of disease	9	2	1	0	1	2	15
Alive with recurrence	0	0	0	0	0	0	0
Dead, other cause, without recurrence	0	0	0	1	0	2	3
							34

Table IV. Survival of patients with intrinsic lesions.

tables: 19 patients are omitted from the following four tables because they were not followed and/or not treated and/or not classified.

Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	2	6	4	2	0	0	14
Dead of disease	22	10	1	0	0	1	34
Alive with recurrence	1	1	0	0	0	1	3
Dead, other cause, without recurrence	0	0	0	0	0	1	1
							52

Table V. Survival of patients with extrinsic lesions.

Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	1	1	0	1	0	1	4
Dead of disease	3	1	0	0	0	0	4
Alive with recurrence	0	0	0	0	0	0	0
Dead, other cause, without recurrence	0	0	0	0	0	0	0
							8

Table VI. Survival of patients with subglottic lesions.

Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	0	3	0	4	0	0	7
Dead of disease	4	3	0	1	0	0	8
Alive with recurrence	0	0	0	1	0	0	1
Dead, other cause, without recurrence	0	0	0	0	0	1	1
							17

Table VII. Survival of patients with endolaryngeal lesions.

Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	1	5	6	7	2	6	27
Dead of disease	5	3	0	0	2	1	11
Alive with recurrence	0	0	0	2	0	0	2
Dead, other causes, without recurrence	0	0	0	0	1	3	4
							44

Table VIII. Survival of patients without metastasis.

Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	1	5	3	1	2	3	15
Dead of disease	14	10	3	1	0	4	32
Alive with recurrence	1	0	0	1	1	0	3
Dead, other causes, without recurrence	0	0	0	0	1	0	1
							51

Table IX. Survival of Patients with metastasis.

Survival after therapy is related to metastasis in the following tables: 34 patients are omitted from the following tables because they were not followed and/or not treated and/or had questionable metastasis.

Therapy

The treatment of the patients studied was in no way standardized, and many different procedures were performed. Ten of the patients received no therapy for various reasons, and 10 patients treated have no follow-ups. The evaluation of therapy is further complicated by the lack of a standardized criterion of "cure" due to the fact that car-

Therapy	Number of patients treated	Alive without recurrence	Dead of disease	Dead less than 1 week post therapy	Alive with recurrence	Dead, other causes, without recurrence	Status Unknown
Laryngectomy and external irradiation	2	0	2	0	0	0	0
Laryngectomy, external irradiation and unilateral neck dissection	12	5	5	0	1	0	1
Laryngectomy and unilateral radical neck dissection	13	6	4	3	0	0	0
Laryngectomy and bilateral neck dissection	2	1	1	0	0	0	0
Laryngectomy, external irradiation and bilateral neck dissection	1	0	0	0	0	0	1
External irradiation only	22	1	20	0	0	0	1
Total	52	13	32	3	1	0	3

Table X. Therapy of patients with metastasis.

Therapy	Number of patients treated	Alive without recurrence	Dead of disease	Dead less than 1 week post therapy	Alive with recurrence	Dead, other causes, without recurrence	Status Unknown
External irradiation only	11	2	7	0	2	0	0
Tracheostomy (palliative)	1	0	0	0	0	0	1
Laryngectomy	1	0	0	0	0	0	1
Laryngectomy and external irradiation	2	1	1	0	0	0	0
Laryngectomy, external irradiation and radical neck dissection (unilateral)	1	0	1	0	0	0	0
Total	16	3	9	0	2	0	2

Table XI. Therapy of patients with questionable metastasis.

Therapy	Number of patients treated	Alive without recurrence	Dead of disease	Dead less than 1 week post therapy	Alive with recurrence	Dead, other causes, without recurrence	Status Unknown
Laryngofissures	7	3	1	0	1	0	2
Hemilaryngectomy	1	0	0	0	1	0	0
Laryngectomy	20	16	0	1	0	3	1
Laryngectomy and external irradiation	4	0	4	0	0	0	0
Laryngectomy and unilateral neck dissection	10	7	0	0	0	1	2
Laryngectomy and bilateral radical neck dissection	1	0	0	1	0	0	0
External irradiation only	8	3	5	0	0	0	0
Total	51	29	10	2	2	4	5

Table XII. Therapy of patients without metastasis.

cinoma of the larynx tends to recur many years after definitive curative procedures are done. Since this is true, and a large number of patients in this study were treated less than five years ago, survival times and general status as to recurrence and other causes of death have been utilized as a criterion of therapy.

The patients who received irradiation therapy were largely the group whose lesions were extensive. In a large percentage of cases the irradiation therapy was palliative. This accounts for the poor survival of patients treated primarily with radiation therapy. (See table XIX.)

It should, however, be noted that Wang[11] reports 150 cases treated with irradiation, and in his study a 29 per cent five-year survival was obtained in those patients who did not have metastasis, and only 8 per cent five-year survival in those patients who did have metastasis.

In most, if not all, cases reported as "without recurrence," laryngoscopic examinations have been performed. Tables X, XI and XII present the general states of patients with, without and with questionable metastasis after various forms of therapy.

The following five tables present the survival times of years for the various methods of treatment of carcinoma of the larynx. The survival times of all patients treated (including palliative therapy) are presented in table XVIII.

Total 41	One patient not followed						
Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	0	1	1	0	1	3	6
Dead of disease	14	11	2	1	0	4	32
Alive with recurrence	0	0	0	0	1	0	1
Dead, other causes, without recurrence	0	0	0	0	0	1	1

Table XIII. Survival of patients treated with external irradiation only.

Total 20	One patient not followed						
Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	0	3	2	4	2	5	16
Dead of disease	0	0	0	0	0	0	0
Alive with recurrence	0	0	1	0	0	0	1
Dead, other causes, without recurrence	0	0	0	0	1	2	3

Table XIV. Survival of patients treated with laryngectomies only.

Total 7	Two patients not followed						
Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	0	0	0	2	0	1	3
Dead of disease	0	0	0	0	0	1	1
Alive with recurrence	0	0	0	1	0	0	1
Dead, other causes, without recurrence	0	0	0	0	0	0	0

Table XV. Survival of patients treated with laryngofissures only.

Total 26	Two patients not followed						
Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	0	4	5	2	0	2	13
Dead of disease	6	4	0	0	0	0	10
Alive with recurrence	0	0	0	0	0	0	0
Dead, other causes, without recurrence	0	0	0	0	0	1	1

Table XVI. Survival of patients treated with laryngectomy and radical neck dissections.

Total 14	One patient not followed						
Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	0	3	1	0	1	0	5
Dead of disease	3	2	0	0	0	0	5
Alive with recurrence	2	0	0	1	0	0	3
Dead, other causes, without recurrence	0	0	0	0	0	0	0

Table XVIII. Survival of patients treated with laryngectomy, external irradiation and radical neck dissection.

Total 119	Ten patients not followed						
Years after therapy	0-1	1-2	2-3	3-4	4-5	Over 5	Total
Alive without recurrence	1	11	9	8	5	11	45
Dead of disease	24	20	2	2	1	6	55
Alive with recurrence	1	0	1	3	0	0	5
Dead, other causes, without recurrence	0	0	0	0	1	3	4

Table XVIII. Survival of all patients treated.

Of the 10 patients who received no therapy, four died of carcinoma of the larynx less than 36 months after diagnosis, two are alive more than 36 months after diagnosis, and the status of the four others is unknown.

Summary

One hundred and twenty-nine cases of laryngeal carcinoma by biopsy have been reviewed. Ninety-one and five-tenths per cent of these patients were males, and only 3.9 per cent were Negroes. The average age of patients at the time of diagnosis was 60.7 years. Eighty-eight per cent of 60 patients questioned about smoking habits admitted using tobacco in some form. Sixty per cent of 93 patients questioned about their occupations were out-of-door workers. Thirty-five per cent of 72 patients questioned had a positive family history of cancer.

No. of Patients	Therapy	WITHOUT METASTASIS Alive without recurrence	WITHOUT METASTASIS Dead of disease	WITH METASTASIS Alive without recurrence	WITH METASTASIS Dead of disease
29	Irradiation only	3	5	1	20
16	Laryngectomy	16	0	0	0
21	Laryngectomy and radical neck dissection	7	1	6	7
6	Laryngectomy and irradiation	0	4	0	2
10	Laryngectomy, radical neck dissection and irradiation	0	0	5	5
—		—	—	—	—
82	Total	26	10	12	34

Table XIX. Survival of patients related to treatment and metastasis.

Ninety-six and eight-tenths per cent of the lesions were squamous cell carcinoma. Various symptoms were noted by these patients, but the most frequent and often earliest symptom noted was hoarseness. Fifty-five patients had metastasis, and 19 patients had questionable metastasis at the time of diagnosis. Fifty-five patients did not show evidence of metastasis at the time of diagnosis.

The location of the lesion has been classified according to Walsh. Thirty-one per cent of the lesions were intrinsic, 46 per cent of the lesions were extrinsic, 6 per cent of the lesions were subglottic, and 15 per cent of the lesions were endolaryngeal.

Forty-four per cent of the 40 patients that had intrinsic lesions were alive without recurrence at least one year or longer after therapy. Twenty-three per cent of the 59 patients that had extrinsic lesions were alive without recurrence at least one year or longor after therapy. Thirty-five per cent of the 8 patients that had subglottic lesions were alive without recurrence at least one year after therapy. Forty-one per cent of the 19 patients that had endolaryngeal lesions were alive without recurrence at least one year after therapy.

Twenty-seven per cent of patients with metastasis were alive without recurrence at least one year or longer after treatment. Fifty-nine per cent of the patients without metastasis were alive without recurrence at least one year or longer after treatment.

Fifteen per cent of patients treated with irradiation only were alive without recurrence at least one year or longer after therapy. Eighty per cent of the patients treated with laryngectomies only were alive without recurrence at least one year or longer after therapy. Fifty-four per cent of the patients treated with laryngectomies and radical neck dissections were alive without recurrence at least one year or longer after therapy. Forty-eight per cent of the patients treated with laryngectomies, radical neck dissections, and external irradiation were alive without recurrence at least one year or longer after therapy.

Forty per cent of all patients treated and followed were alive without recurrence at least one year or longer after therapy.

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Pasteur Building, Oklahoma City, Oklahoma

Electrophoretic studies now available to Oklahoma doctors can provide clinically useful information, especially in patients with liver diseases, myeloma, persistent or repeated infections, and sickle-cell anemia.

PROTEIN ELECTROPHORESIS

An Aid to Clinical Diagnosis*

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WILLIAM T. SNODDY, M.D.

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THE ANALYSES of blood protein components have been of intense interest to clinicians for many years; however, until the past decade little information regarding specific fractions of proteins was available. Since 1950 there has been a tremendous increase in our knowledge of serum protein fractions. This advance was made possible by the work of hundreds of investigators and by the perfection and simplification of electrophoretic equipment and procedures.

One of the most valuable laboratory determinations available today is the electrophoretic pattern obtained by analysis of serum proteins. This fact has been realized by physicians served by our hospital laboratory as evidenced by the requests for more than 1000 electrophoretic patterns during the past two years.

Methods

It is beyond the scope of this writing to include detailed discussions of procedures, mechanisms and calculations utilized. The theory involved in electrophoresis is simple. Individual protein fractions have different electrical charges, and when placed in an electrical field, migrate at different speeds and therefore assume different positions. We have modified the standard procedures[1] to obtain faster, and, therefore, more readily accessible results. To obtain the migration pattern a very small quantity (6 microliters) of serum is placed at the summit of a vertical strip of filter paper, the paper having been previously saturated with barbital buffer (0.05 ionic strength, pH. 8.6). We use 15 MA, instead of 5 MA, current during a five hour, rather than 16 hour, migration period. This current also causes production of heat which increases evaporation of water from the paper strip in the electrophoretic cell. The buffer solution is in contact with the lower ends of the vertical strips of paper and supplies additional moisture as needed during the procedure. Using this faster procedure no objectionable alteration is encountered. The migration of serum proceeds in this manner:

*This paper is from the Department of Pathology, St. Anthony Hospital, Oklahoma City, Oklahoma and was presented before the American College of Physicians Regional Meeting at Sequoyah State Park, October 15, 1960.

1) The albumin fraction moves most rapidly toward the anode leaving a portion of this fraction adsorbed to the paper as a trailing "tail";[2]

2) the next fastest fraction, alpha-1 globulin, is in close apposition the albumin fraction;

3) alpha-2 globulin migrates with approximately one-half the speed of albumin and therefore assumes a position near the middle of the protein distribution on the strip of filter paper;

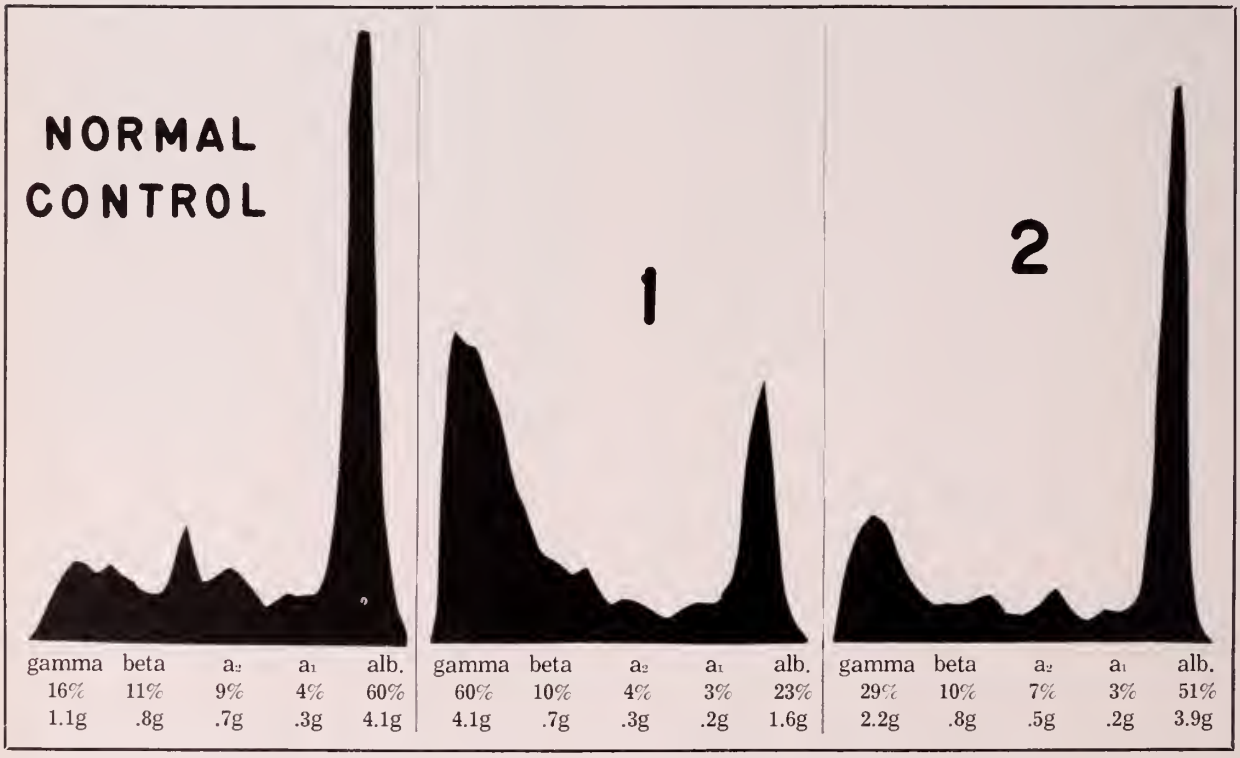
4) beta globulin migrates slowly and moves only slightly toward the anode from the point of application;

5) gamma globulin migrates much differently in this polarized solution, assuming a position toward the cathode from the point of application.

For simplicity, it can be stated that using this method the electrophoretic separation of normal serum reveals albumin to be approximately 60% of the total protein, alpha-1 globulin 4%, alpha-2 globulin 8%, beta globulin 12%, and gamma globulin 16%.

After the migration of the proteins is completed, the filter strips are dried in a preheated oven at 120° C for 30 minutes. This drying denatures and fixes the protein to the paper strips. Next, the protein strips are stained with bromphenol blue. The stained strip is fed through a photoelectric densitometer (Spinco-Analytrol®) where the protein pattern is drawn corresponding to the density of the dye-protein on the paper strip.

In our laboratory the pattern of protein distribution is drawn on one-half of the chart sheet and a control pattern is drawn on the other half for comparison. We use pooled human sera (Versatol®) as the control. Percentages obtained by this analysis and a chemically determined total protein value are used to calculate the "absolute"



NORMAL CONTROL PATTERN—Obtained by Electrophoretic Separation of serum proteins of pooled adult human sera.

Figure 1. CIRRHOSIS—A marked decrease in albumin and marked increase in gamma globulin is noted in cirrhosis. Alpha and beta globulins show little change. This 51 year-old white male had ascites and history of malnutrition and alcoholism.

Figure 2. INFECTIOUS HEPATITIS—The albumin fraction reveals slight to moderate decrease and gamma globulin shows slight to moderate increase during hepatitis. Alpha-2 globulin may be slightly increased. All changes in proteins are related to the intensity and duration of the disease. This 6 year old white female had a serum transaminase (SGOT) of 6,200 units.

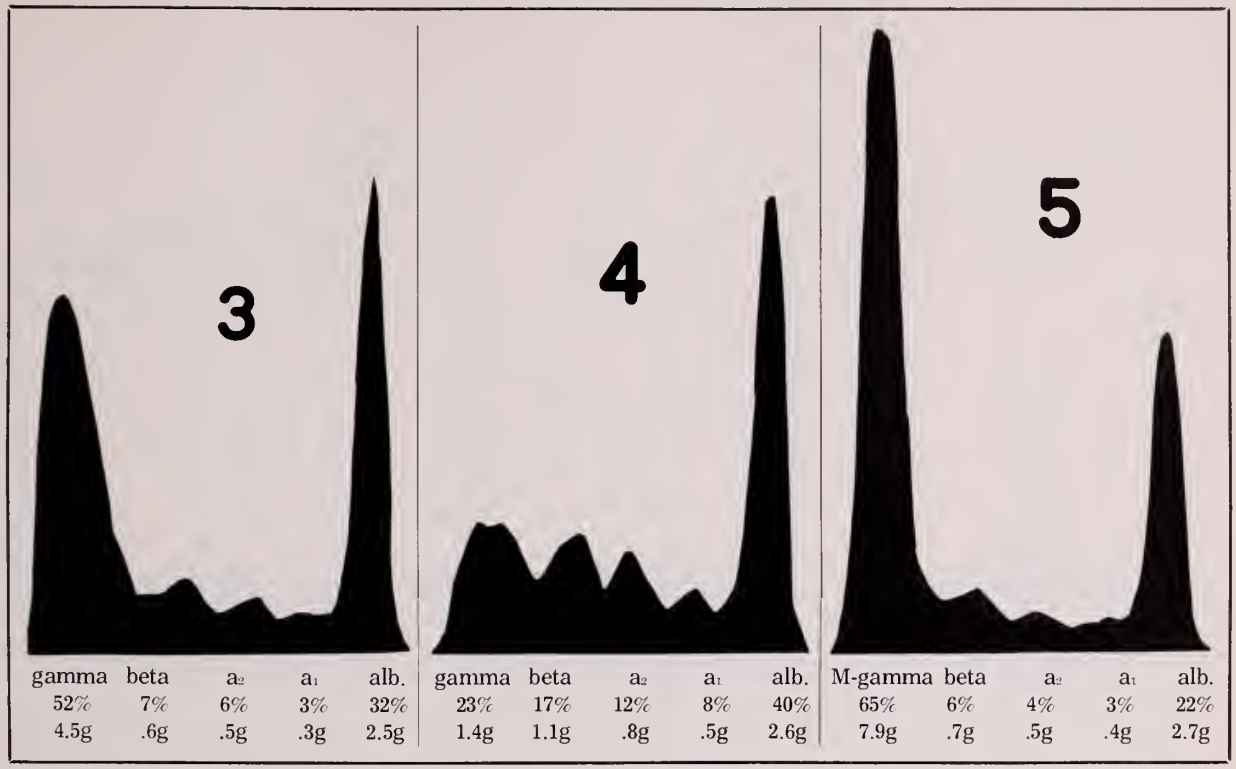


Figure 3. LUPOID HEPATITIS—This unusual pattern of marked increased gamma globulin with only moderately decreased albumin was associated with consistently positive L-E preparations. A liver biopsy revealed only early cirrhosis. During a period of cortisone therapy, this patient's protein distribution was near normal, but reverted to this pattern when cortisone was discontinued.

Figure 4. SARCOIDOSIS—Albumin is moderately decreased and there are "step-like" increases in globulins in the serum of this 42 year old colored woman. A liver biopsy revealed diffuse granulomatous lesions without necrosis.

Figure 5. MULTIPLE MYELOMA—The abnormal protein (M-protein) in gamma position seen in this 50 year-old white male patient's serum is typical of myeloma protein. This tall peak with a narrow base accounts for 7.9 gm. protein/100 ml. serum. A biopsy specimen of tumor from a fractured rib was typical of myeloma. There is a moderate decrease in albumin.

values in grams per 100 ml. A comparison of "absolute" values (grams per cent) is definitely preferable to the use of percentages. (See normal control pattern).

Clinical Application

Certain information is indispensable in the interpretation of a patient's serum protein including: 1) Knowledge of the normal range of absolute values, 2) expected variations in the configuration of the pattern, 3) an understanding of pathophysiology involved in various diseases, and 4) a clinical history. The age of the patient, especially in infants[4] and elderly patients, must be known. Pregnancy causes marked variation from "normal" with decrease in albumin and increase in globulin values[4]. Recent illnesses often manifest slight changes in protein distribution.

Characteristic serum protein changes have been associated with many illnesses; however, few diseases cause pathognomonic or definitely diagnostic changes. Serum from patients with diseases affecting the liver, the reticulo-endothelial tissues, or the kidneys most often produce clinically significant patterns.

In chronic diseases of the liver there is frequently seen a pattern which has marked decrease in albumin and moderate to marked increase in gamma globulin. These changes are noted in cirrhosis, fatty metamorphosis, or tumor replacement of liver; and these diseases seldom produce prominent changes in other protein fractions (figure 1). On the other hand, in patients with acute infectious hepatitis we usually see only slight decrease in albumin accompanied by moderate

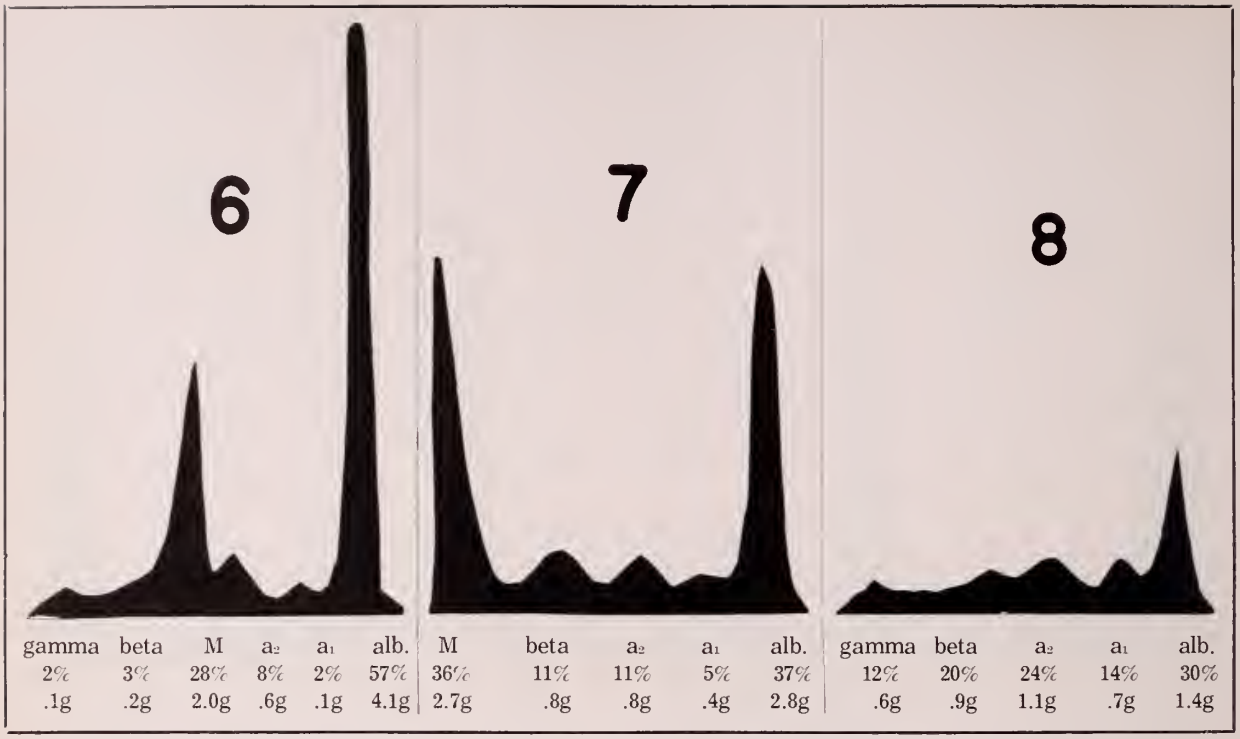


Figure 6. MULTIPLE MYELOMA—Beta position is assumed by M-protein in 10% of cases. The marked hypogammaglobulinemia seen in many myeloma patients is present in this 58 year-old white female.

Figure 7. MULTIPLE MYELOMA—This 55 year-old white female patient's serum demonstrates M-protein in gamma position. Eighty per cent of M-proteins migrate to this position. Total protein in this serum was normal and albumin slightly decreased.

Figure 8. LEUKEMIA—Marked decrease in albumin is noted in many advanced malignancies, especially when liver tissue is replaced. Hypogammaglobulinemia as seen in this patient is often present in patients with acute or chronic lymphocytic leukemia, lymphosarcoma, myeloma and neuroblastoma. This woman had poor resistance to infections.

increase in alpha-2 and gamma globulin (figure 2). One of the most interesting serums we have studied was that of a patient subsequently regarded as having "Lupoid hepatitis."[5] In this patient there was both a moderate decrease in albumin and a marked increase in gamma globulin (figure 3). This patient had consistently positive L-E preparations. When the patient was placed on cortisone therapy, the protein pattern reverted toward normal. Later, when cortisone therapy was discontinued, the protein pattern returned to that originally noted. A liver biopsy showed only early changes of cirrhosis.

These protein changes in patients with liver disease apparently reflect: 1) decreased ability of the liver to manufacture albumin, alpha-1 globulin, alpha-2 globulin, and beta globulin with albumin being more profoundly affected; 2) response of the reticulo-endothelial tissues to compensate for decreased albumin by production of additional globulins; and 3) increased antibody production by the reticulo-endothelial tissues in some diseases, such as infectious hepatitis.

Serum protein changes in association with gallbladder disease[6] are not impressive. Slight decrease in albumin and non-specific increase in alpha globulins have been noted with many infectious diseases, including cholecystitis.

In diseases of reticulo-endothelial tissues prominent change in the protein fractions is often pronounced. Almost pathognomonic is the superimposed paraproteins (M-proteins) seen in patients with multiple myeloma (figure 5, 6, and 7). These M-protein fractions can be seen overlaying alpha, beta, or gamma globulin and cause a prominent peak in the pattern due to an abnormal homogenous band of paraprotein on the paper strip. An alteration often overlooked

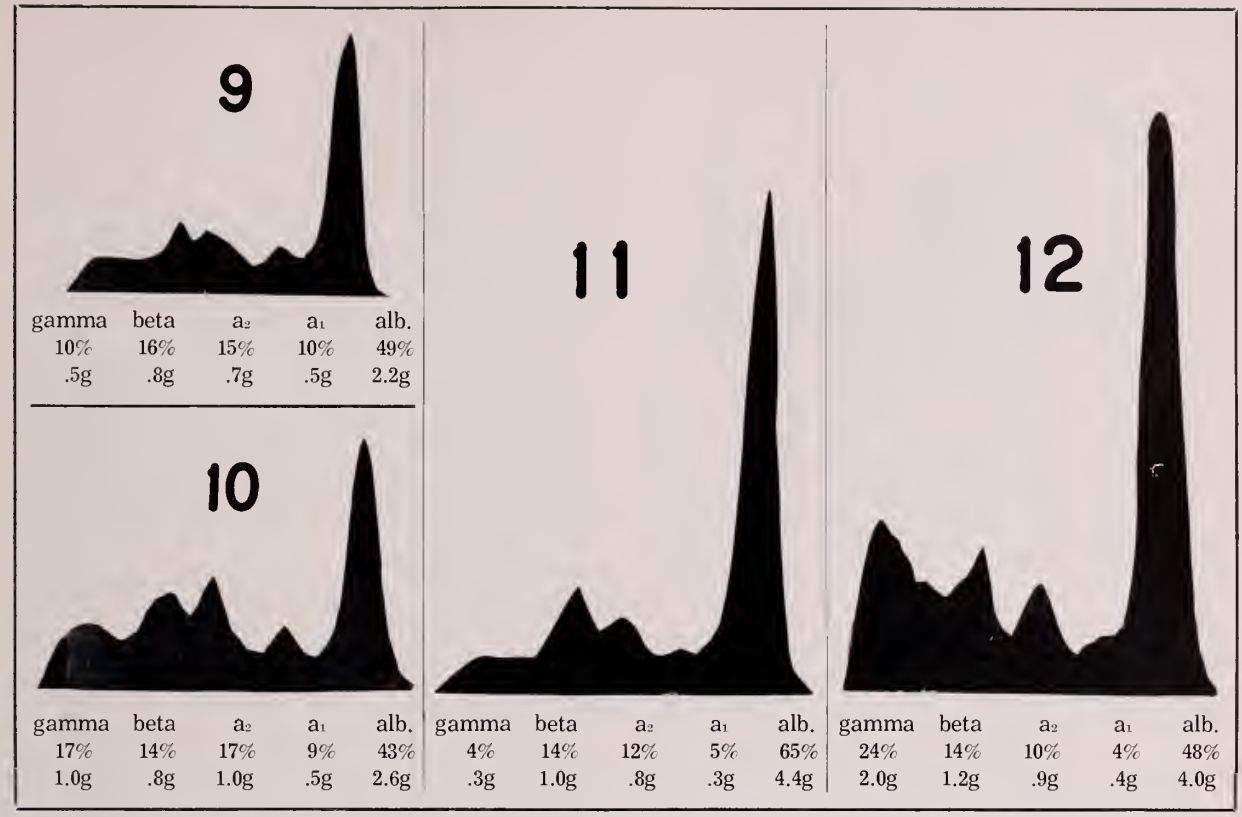


Figure 9. NEPHROTIC SYNDROME—Albumin and gamma globulin are very low in patients with nephrotic syndrome. These patients almost invariably also show increase in absolute values of alpha-1 globulin as is noted in this edematous 9 year-old white female.

Figure 10. BURNS—Protein loss in burn patients is reflected by low total protein and marked decrease in albumin. Gamma globulin is usually normal or slightly elevated. Increased alpha-2 globulin as noted in this 43 year-old white female, may reflect antibody response to secondary infections.

Figure 11. PRIMARY HYPOGAMMAGLOBULINEMIA—is diagnosed when children with repeated or persistent infections have absolute values of gammaglobulin 30% or more below normal values for their ages. This patient was a 6 months old white male.

Figure 12. REPEATED AND PERSISTENT INFECTIONS—This 9 year-old white male has experienced numerous infections throughout his life. He has cystic fibrosis of pancreas. Increase in all globulin fractions suggests he has normal antibody production.

is the moderate decrease in gamma globulin commonly present in these patients (figure 6). This oversight is due largely to the fact that the paraprotein of multiple myeloma in most instances occurs at the gamma globulin position, and therefore precludes the usual examination of gamma globulin. Also, the paraprotein of multiple myeloma is very peculiar in that it stains not only for protein but also for carbohydrates,[7,8] lipids[5] and nucleic acid.[9] Another interesting problem posed by some patients with multiple myeloma is that the serum and/or the urine may not show the abnormal protein fractions.

Macrogammaglobulinemia of Waldenstrom may cause a peak in the gamma globulin fraction identical to the M-protein noted in myeloma patients. Patients in which studies by ultracentrifugation have verified the existence of macroglobulins have often later been proved to have a variety of diseases including myeloma, lymphosarcoma and chronic lymphocytic leukemia.[5]

In lymphosarcoma and acute or chronic lymphocytic leukemia some patients show a moderate to marked decrease in gamma globulin (figure 8). This deficiency suggests a possible reason for the infections that are commonly seen in these patients and administration of gamma globulin has proved beneficial. Patients with monocytic or myelocytic leukemia, on the other hand, fail to show this decrease in gamma globulin

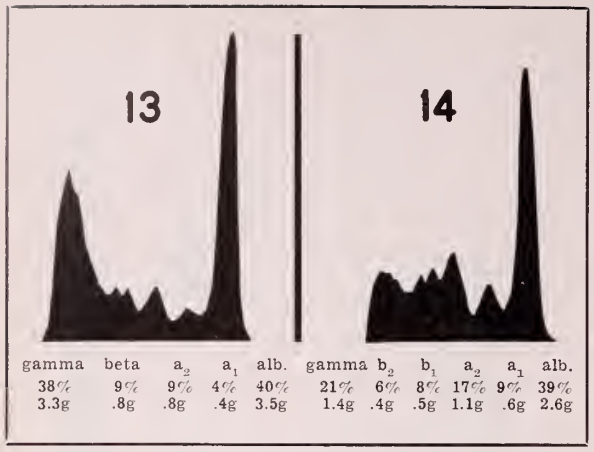


Figure 13. RHEUMATOID ARTHRITIS—A marked increase in gamma globulin with slight increase of alpha globulins is noted in rheumatoid patients' serum. This 71 year-old white female has severe deformities of hands and wrists. Her latex fixation is positive 1:5120 dilutions.

Figure 14. MALIGNANCY—STRESS—Many illnesses cause moderate decrease in albumin and slight increase in globulin fractions. This elderly male with inoperable carcinoma of lung exhibits non-specific increase in alpha-2 globulin and splitting of the beta globulin fraction.

and actually show an increase in many instances, Hodgkins disease may cause a marked increase in alpha-2 globulin, especially during periods of increased activity of the disease.

Collagen diseases most often produce non-specific changes[10] including increases in a heterogenous group of proteins at the gamma position. Patients with rheumatoid arthritis may show prominent increase in both gamma globulin and alpha-1 globulin (figure 13). Generalized decrease in absolute values of all fractions excepting gamma globulin have been observed in patients with scleroderma and dermatomyositis.[11]

Although the changes are not of definite diagnostic significance, we have noted the "step-like" increased globulins in Boeck's sarcoid, as described by Sunderman[11] (figure 4).

Renal disease and extensive body burns may cause marked loss of albumin. In most instances there is an associated increase in alpha-2 globulin. Most kidney diseases also cause a moderate to marked decrease in gamma globulin (figure 9). In patients with the nephrotic syndrome proteinuria may be extensive and cause very low values for all fractions. The gamma globulin fraction in patients with burns is normal or slightly elevated (figure 10). If the serum is selectively prestained with Sudan black B[12] one sees an increase in the amount of lipoprotein at the beta position in patients with renal disease. This is directly opposed to the decreased beta lipoprotein seen in patients with liver disease, and therefore may serve as a differential point.[5]

Two very interesting diseases have been uncovered as a result of serum protein electrophoretic studies. One of these is the virtual absence of albumin, called "analbuminemia." One such patient has been reported from the University of Oklahoma Medical Center, and is one of the few cases reported in the literature.[13] Subsequent investigation of this patient using radioactive sulphur (S-35)) tagged methionine has shown that the patient produces only one five-hundredth of the normal amount of albumin.[14] The other disease uncovered by electrophoretic studies is agammaglobulinemia.[15] These patients together with patients showing a marked hypogammaglobulin fraction[16] have lowered resistance to infections (figure 11). After the administration of gamma globulin, they show marked improvement even though they continue to show a low gamma globulin fraction during treatment. It should be pointed out that in order to interpret the gamma globulin fractions of infants and small children a comparison with normal values for the specific age is necessary.[4] A decrease of more than 30% below the average for the given age is considered indicative of hypogammaglobulinemia.[5]

In direct contrast to patients with hypogammaglobulinemia are patients with repeated persistent infections such as seen in those with fibrocystic disease of the pancreas (figure 12). In this latter group there is a moderate rise in globulins, especially the gamma globulin fraction, as would be expected with normal antibody response.

Wall[5] has referred to the non-specific changes seen in many illnesses as the "stress pattern." Frequently these changes consist of slight decrease in albumin, together with increase in alpha-1, alpha-2 and gamma

globulin. Beta globulin is often split and shows a slight decrease.

Electrophoretic protein patterns of patients with advanced carcinoma frequently show prominent increase in alpha-2 and/or beta globulins.[17] Here again, the beta globulin is often split into two fractions (figure 14). Recent studies using potato starch gel electrophoresis reveal that atypical haptoglobin[18,19] fractions are present in this portion of the protein pattern.

Special stains for lipoprotein have shown the presence of abnormal lipoprotein distributions in patients with advanced atherosclerosis.[20,21] It is now possible to identify lipoprotein corresponding to each protein fraction, and further investigation of these components is needed to clarify their significance in clinical medicine.

Protein electrophoretic studies of hemoglobin have shown distinctly separable hemoglobins in patients with sickle cell anemia, sickle-C disease,[22] sickle-D disease,[23] sickle-E disease[24] and sickle trait. A total of 12 separate types of hemoglobin are now recognizable using electrophoretic and chemical tests.

There are many facets of interest in the research of these protein fractions. We have been particularly interested in seeing additional selective stains developed for the differential identification of proteins and paraproteins. Perhaps when such differential stains are available, we can identify particular antibody groups within the globulins, and also possibly identify abnormal proteins elaborated by tumors. At present no such differential stains are available for practical clinical application.

Summary

The value of protein electrophoresis in clinical medicine is discussed and examples of non-specific as well as diagnostic protein alterations are cited. Electrophoretic patterns may be particularly helpful in diseases involving hepatic, renal or reticuloendothelial tissues and in children with persistent or repeated infections.

A modification of standard procedure for migration of serum protein is given. This faster method provides more accessible results for the clinician.

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Maternal Mortality Study Committee

A Report of Two Cases

THE FOLLOWING CASES were selected by the committee for publication in the Journal on the basis of their educational value. Permission of the attendants for the publication has been obtained through the State Department of Health. For obvious reasons, complete anonymity will be maintained. The comments which follow the case histories represent the opinion of the committee and do not necessarily reflect the attitude of the Editors.

Case No. 290

The very complete report submitted by the attending physician is reproduced here without change or additions.

"The patient was first seen on March 31, 1959, complaining of amenorrhea since the ninth of February, 1959. The patient had two children living and well and had had one abortion without complication. The last pregnancy had been delivered by Cesarean section because of placenta praevia. Examination on March 31, 1959 revealed a normal young white female appearing neither acutely nor chronically ill. The entire physical examination was not remarkable. There was a healed lower midline abdominal scar without hernia. Pelvic examination revealed an early pregnant uterus; the adnexa were not remarkable. Due to the presence of some nausea, the patient was started on Bucladin, twice a day, which gave immediate and good relief. Her initial blood pressure was 110/70 and remained so throughout the entire pregnancy. Initial uranalysis revealed no abnormality and remained so throughout the entire pregancy. X-ray film of the chest on March 31, 1959 revealed a normal chest. Hematocrit on that date was 40%; RH positive, Type O; STS negative.

"The patient was followed at routine regular intervals throughout her entire pregnancy and was admitted to the hospital on November 5, 1959 for elective Cesarean section on November 6, 1959. Her expected date of confinement was November 16, 1959. At the time of admission, MacDonald's measurement was 30 cm., fetus was in LOT position, and fetal heart tones were normal. The patient's blood pressure was 100/60 on admission, uranalysis normal, hemoglobin 13 gms.

"On the morning of November 6, 1959, the patient was taken to the operating room at 8 a.m., having received Sodium Amytal at 6 a.m., .2 gm. and Phenergan 50 mg., Demerol 50 mg. and Atropine 0.4 mg. at 7 a.m. Spinal anesthesia was instituted at L-4 level, using 100 mg. of Procaine, 5 mg. of Pontocaine. Blood pressure remained stable following spinal anesthetic; good anesthesia was obtained (until closure of the abdomen when supplemental Sodium Pentothal was administered). After routine preparation and draping, the patient's abdomen was opened by excising the scar of previous operation. Exploration revealed that the uterus had

been previously opened by a classical section; this was not disturbed, and there were no adhesions. The lower uterine segment was exposed, the bladder flap dissected free from the lower segment, and the uterus incised transversely, and a viable infant was delivered from the uterus. The uterus contracted immediately and was closed in routine fashion. The abdomen was closed in routine fashion. The patient was returned to the Recovery Room in good condition. Throughout her operation, the blood pressure remained stable, in the neighborhood of 100/60. It was the same in the Recovery Room where she remained for approximately 45 minutes. Following this, she was returned to the Ward. Around 10:30 a.m. she sat straight up in bed and complained of being short of breath. She lay down and expired. Attempts at resuscitation made with oxygen and intracardiac caffeine were of no avail.

"Later that afternoon an autopsy was done. On opening the abdomen, it was found that the abdomen was filled with old and fresh blood, the amount 2500 to 3000 cc. A careful examination revealed the source of this blood to be a ruptured varicosity of the left broad ligament high and posterior on the left side of the uterus. The incision was intact and dry. There were no blood vessels in or around the incision which had leaked. The remainder of the autopsy was noncontributory. The report of the Pathologist was that death was due to exsanguinating hemorrhage from a large, ruptured varicose vein of the left broad ligament.

"A study of the literature revealed that in 1950 an article appeared in the American Journal of Obstetrics and Gynecology on Page 1112, reporting a number of similar cases from a hospital in Detroit, Michigan. The Committee is referred to this article for further elucidation of this most unusual and rare case. It is the opinion of the reporting and attending physician that had he been standing beside the patient at the time of her crisis, with adequate blood supply at hand, he would have been unable to administer enough blood to carry her until a hysterectomy could be done. The varicosity was at least 2 cm. in diameter, and the hemorrhage must have been complete and exsanguinating at its onset."

Summary of Comments by the Special Committee

The great importance of an adequately performed autopsy is well illustrated by the case under discussion and it is hoped that the review of this unfortunate death will stimulate all of us to make greater efforts to obtain permission for autopsies when and if the occasion demands.

The Committee reviewed the publication noted by the reporting physician and strongly recommends a like study by those interested in obstetrics or engaged in its practice. Severe hemorrhage from utero-ovarian veins associated with pregnancy is apparently and fortunately a very rare complication. A review of the cases reported seems to indicate that hemorrhage from this source may occur prior to labor with some cases as early as ten weeks gestation, during labor and during the puerperium as late as several weeks after delivery. Increased pressure in the dilated or "varicose" veins of the pelvis secondary to increased intra-abdominal pressure following some muscular activity seemed to be the precipitating factor in some cases. In many other cases there seemed to be no known precipitating factor of possible source of trauma. The bleeding is intraperitoneal, retroperitoneal or both, depending upon the point of rupture of the vein and, of course, secondary rupture of the hematoma into the peritoneal cavity from retroperitoneal spaces. Occasionally a mass may be palpable through the abdominal wall. Symptoms of this complication are almost entirely limited to sudden abdominal pain and shock. If rupture of the vein occurs during labor, it is easy to realize how difficult differential diagnosis would be and for this reason the mortality in the cases of this type reported was higher than in those occurring before or after labor. The mortality rate for the whole group of cases reported in the literature was 50%. Labor associated with the accident increased the mortality to 76%.

Treatment, of course, consists of rapid replacement of blood loss and arrest of further bleeding. In the cases reported, Cesarean section was done in most instances of bleed-

ing prior to labor or delivery to facilitate adequate exposure to search for the source of bleeding. Ligation of the veins was done with success when the precise bleeding points could be determined and hysterectomy was the procedure of choice when points of rupture could not be grossly identified.

The Committee agrees with the cause of death as given on the death certificate and considers this death as not avoidable.

Case No. 287

The protocol in this case submitted by the reporting physician is complete and very well prepared, and is reproduced in original form here:

"The patient was a 22-year old Gravida I, Para I, Ab-o, Indian female who was first seen at the hospital on 4-12-59 in O.B. Clinic. On that date she stated her LMP was in August, 1958, and her EDC was considered to be May, 1959. She had had no complications of pregnancy prior to this time by history, but had not been under the care of a doctor. On general examination she was normotensive, and the P. E. was normal except for an enlarged uterus with fundus 18 cm. above pubis. Her total weight gain was 15 lbs. Hgb—11 gms., Hct. 36%, blood type O positive, VDRL Qual. negative. Her only complaint was frequent headaches. She was to return at weekly intervals to clinic, but was not again seen until 5-6-59 at which time blood pressure was 144/90, proteinuria 1+, pedal pitting edema 1+, and total weight gain of 23 lbs. with 8-lb. weight gain from 4-13-59 to 5-6-59. Patient was placed on Diamox 250 mgm every a.m., Phenobarbital ¼ grain q.i.d., and instructed on a 1500 cal. low salt diet. On 5-19-59 the blood pressure was 150/104, no proteinuria or pedal edema, and patient had lost 2 lbs. She was asymptomatic but due to persistent hypertension was placed on Apresoline 0.25 mgm daily and Serpasil 0.1 mgm daily. She was not seen again until 6-2-59 when she was noted to have lost another 1 lb. with total weight gain was 20 lbs., but blood pressure was 158/108 and trace proteinuria was present. Because of hypertension, patient was admitted to hospital on 6-2-59. Physical examination was not remarkable. Height of fundus was 27 cm and FHT were 144/min. Hgb 10.5 gm. Hct 35%, WBC 5850 with 70% neutrophils and 30% lymphs. FBS 63 mgm%, Bun 10% mgm. Chest film normal. Films of pelvis revealed evidence of full term pregnancy. Despite bed rest and drug therapy, hypertension and proteinuria persisted and since patient was considered to be full term, it was felt that induction of labor was indicated.

"On 6-4-59 following artificial rupture of membranes, patient received an oxytocin (Syntocinon) drip for approximately 1½ hours after which she continued in labor on her own. Demerol, Phenergan and Atropine were given during the 1st stage of labor. After 4 hours and 50 minutes of labor the patient delivered a live, normal infant by low forceps delivery (forceps on 3 minutes) under Saddle block anesthesia without complications. Placenta delivered spontaneously and intact 4 minutes following delivery following which Methergin 0.2 mgm I.M. was given. A LML episiotomy had been done and was repaired without other lacerations. Postpartum bleeding was average. On the 2nd and 3rd postpartum days the patient had a low grade fever of 101 and 100.8 degrees respectively and thereafter remained afebrile until her discharge on 6-9-59. She continued to have persistent proteinuria of 2 to 3 plus but her blood pressure gradually returned to normal and was 138/60 at the time of discharge.

"One day after discharge on 6-10-59 the patient noted onset of persistent headache, malaise and lethargy and by 6-11-59 had become uncommunicative and confused, these symptoms gradually increasing so that she was seen and admitted to the hospital on 6-12-59 at 10 P.M. on the Medicine Service. Physical examination revealed temperature 99 degrees, blood pressure 160/90, pulse 79. Patient was disoriented and lethargic. Eyes, ears, nose and throat were not remarkable with flundoscopic examination completely normal. Marked nuchal rigidity was present with positive Brudzinski. Neurological examination was normal except for positive right Babinski. Uterus was palpable 6 cm. above pubis and patient had a foul smelling reddish-orange vaginal discharge. Remainder of the examination was normal. Hbg 8 gms, Hct 26%, WBC 15,680 with 86%

neutrophils, 10% lymphs and 4% monos. UA revealed 4 plus proteinuria and 15-20 WBC's. Lumbar puncture revealed opening pressure of 140 mm with protein 150 mgm%, sugar 50 mgm% and cell count of 909 polys, 72 lymphs and 36 fresh RBC's. No organisms were seen on smear. The initial impression was meningitis and after CSF, urine, vaginal, throat and blood cultures were obtained, the patient was started on antibiotic therapy of intravenous aqueous penicillin 30,000,000 units per 24 hours and Chloromycetin 4 gms per 24 hours, and oral Gantrisin 3 gms. initially and 4 grams per 24 hours. On 6-13-59 neurosurgical and neurologic consultation were obtained with findings by this time of right hemiparesis and aphasia. The fundi remained normal. It was felt that the patient had meningitis with possible cerebritis localized in the left temporofrontoparietal area and also other possibilities were an abscess in this same area as well as a thrombosis as a complication of the infection. No neurosurgical procedure was recommended but rather continued antibiotic therapy and observation for increased intracranial pressure. All cultures obtained were negative and BUN was normal. By 6-14-59 pt. seemed improved, i.e. was able to move right leg and arm and was more alert and responsive. She showed no signs of increased intracranial pressure and continued to improve until the a.m. of 6-16-59 when she became hypertensive with B.P. 180/130 and less responsive, the pupils were dilated and not reactive, fundi normal, diffuse rhonchi were present throughout the lung fields and neurological exam was unchanged. Chest film was essentially normal with suggestion of pneumonitis in left lower lung and ECG was read as suproventricular tachycardia. Hgb 11.5 gm, Hct 35%, WBC 8750 with 78% neutrophils, 16% lymphs, 6% monos. She remained afebrile but gradually became comatose finally becoming hypotensive. An emergency tracheotomy was performed but pt. expired at 4:10 A.M. on 6-16-59, four days after her 2nd admission to the hospital and 12 days postpartum.

"An autopsy was permitted with the following results: Thrombosis, acute, left sigmoid and sagittal sinuses and meningeal veins and left occipital region; Liquefaction necrosis, extensive, left occipital lobe; Pulmonary embolism, recent, multiple, with focal areas of hemorrhagic infarction; Cor pulmonale, acute, slight; Lungs, congestion, edema, atelectasis, slight; Septic splenitis, minimal; Congestion of viscera; Fatty metamorphosis of liver; Hypoxic nephrosis; Lipid depletion, minimal; Clinical diagnosis postpartum, 12 days.

"Past history of patient revealed that she had had no operations, injuries or serious adult illnesses. Family history was significant in that both her mother and brother had tuberculosis but patient stated that her chest films were normal."

Summary of Comments by the Special Committee

The Committee would first like to commend the reporting physician for a complete and carefully prepared report on this most unusual obstetrical complication, and especially for the effort expended in obtaining the very informative autopsy. Without the latter, many doubts would still exist regarding diagnosis in this patient's final illness.

Thrombosis of the cerebral sinuses and veins associated with the puerperium has been noted occasionally for many years, and it is considered to be a very rare obstetrical complication. Case reports concerning this complication have been published chiefly in the British literature. Several reports in the American literature were published in 1950 and 1951 to which reference is made in these comments.

The case here reported is fairly typical except for the complicating pre-eclampsia, as noted in the protocol, which added some confusion in diagnosis. Convulsions did not occur in this patient, nor was papilledema noted.

In discussing further this rare complication, the Committee felt that a reproduction of the comments of an article published by Burt, Donnelly, and Whitener in the American Journal of Obstetrics and Gynecology, September, 1951, would best convey present opinion upon this subject. For those who might like to pursue the subject more completely, references are added at the conclusion of this discussion.

"Occasional reports of cerebral venous thrombosis during the puerperium have appeared in the literature for more than a century (for review see refs. 1, 2). During the past fifteen years the clinical and pathological features of this condition have been re-emphasized in a number of reports[2,7] and the pertinent literature has been recently summarized by Hyland.[8] In spite of the fact that this complication has been recognized by physicians for many years, the total number of cases reported remains small, and its actual incidence is difficult to assess. Most authors, however, regard it as a most uncommon puerperal accident.

"Briefly the typical case may be characterized as follows: After a normal prenatal course, uncomplicated delivery, and apparently normal early postpartum period, weakness or paralysis rather suddenly develops, frequently in association with convulsive seizures which may be Jacksonian in type. The time of onset is usually within the first three weeks postpartum, although longer intervals have been recorded.[5,7] Headache and confusion may precede the occurrence of frank neurological signs. As might be expected, the neurological manifestations are quite variable and are dependent upon the location, extent, and degree of brain damage, although Martin and Sheehan[5] have commented on the almost universal occurrence of convulsions even without involvement of the motor cortex. The paralysis may manifest itself as an mono- or hemiplegia and contralateral limb involvement has been reported.[2,8] Aphasia and peripheral sensory disturbances are common. The cerebrospinal fluid pressure is typically increased with involvement of the superior sagittal sinus in which case papilledema is usually demonstrable. With significant meningeal or cortical bleeding, the spinal fluid will show the presence of erythrocytes, but is chemically unremarkable except for small increments in protein concentration in some cases.[2,4,5,7,8] Although adequate statistics are unavailable, the mortality has been estimated from 30 to 56 per cent.[2,7]

"A number of authors[2,4,5,7,8] have indicated that the clinical features of this condition are sufficiently unique to permit diagnosis during life, and in a small number of cases in which recovery occurred the diagnosis has been confirmed by exploration[5] or autopsy[5,8] following death by other causes. Many cases undoubtedly pursue a benign course as may become apparent with increased clinical recognition and diagnosis.

"The specific obstetrical problem is one of differentiating these cases from late eclampsia. Martin and Sheehan's[5] Case 2 in which coexistent hypertension and albuminuria were present, but with cerebral venous thrombosis demonstrated at necropsy, is representative of the problem in diagnosis that may be encountered in the early puerperium. The similar symptomatology of these two conditions increases the difficulty in reaching a decision. However, when the onset of symptoms occurs later than four days postpartum, eclampsia probably need not be given serious consideration. Hypertension with edema and/or albuminuria antecedent to the development of neurological symptoms is obviously of great differential diagnostic value in the immediate postpartum period.

"The possibility of space-occupying intracranial lesions, epilepsy, or meningeal infection must be included in the differential diagnosis. The case history, together with clinical laboratory findings, should resolve the diagnosis in most instances. Arterial thrombosis is generally more abrupt in onset, and recovery less complete than with venous thrombosis, although neurological residue may persist following the latter.[5] Arterial embolism is unlikely in the absence of organic heart disease and its occurrence otherwise requires an opening between the right and left sides of the heart such as a patent foramen ovale.

The etiology of cerebral venous thrombosis in the puerperium remains obscure. It is considered as "primary" in distinction to thrombosis occurring with extension of infectious processes about the skull. Of interest is the fact that concomitant thrombosis is frequently found elsewhere in the body.[5,8] Martin,[6] on the basis of Batson's[9] studies has suggested that the intracranial process is initiated by venous emboli derived from the pelvic veins and reaching the ce-

rebral circulation through the vertebral venous plexus. Such a mechanism is considered unlikely by Kendall,[2] who believes the thrombosis to result from changes in the blood of puerperal patients that facilitate clot formation together with local damage to the cerebral vessels presumably occurring in labor. Although these opinions are of considerable theoretical interest, it would appear that a final decision in regard to etiology must await further experimental and clinical data.

"Treatment has been critically evaluated by Hyland,[8] with whom we are in agreement in urging caution in the use of anticoagulant therapy on the basis that increase in cerebral bleeding at the site of thrombosis as well as uterine hemorrhage may result. Barbiturate medication is satisfactory for control of convulsive seizures, but morphine is contraindicated because of its depressant effect on the vital centers, particularly with increasing intracranial pressure. In the latter circumstance, with sagittal sinus involvement, dehydration procedures may be tried (concentrated serum albumin, hypertonic glucose) but repeated lumbar punctures[2] and careful withdrawal of cerebrospinal fluid is a more certain technique for the reduction of intracranial pressure.

"Supportive therapy including attention to fluid, electrolytes, and nutritive needs with good nursing care and the institution of physiotherapy as early as practicable need no comment."

The Committee considered this death as not avoidable and agrees with the causes of death as given on the death certificate.

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MEDICS IN DEFENSE

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Influenza Immunization

LEROY E. BURNEY, Surgeon General
Public Health Service

TWO OUTBREAKS of influenza swept the United States in the fall of 1957 and the winter of 1958, resulting in 60,000 more deaths than would be expected under normal conditions. There were, in addition, more than 26,000 excess deaths during the first 3 months of 1960 which also were considered to be the result of influenza.

These departures from the usually predictable norms prompted the Surgeon General's Advisory Committee on Influenza Research to analyze the cause and to seek measures to prevent such an occurrence in the future.

The committee found that a new antigenic variant, the Asian strain, because of its wide-spread introduction and the general lack of resistance to it, was the direct cause of the excess number of deaths, not only in the total population but most markedly among the chronically ill, the aged, and pregnant women. As a result of these findings, the Public Health Service is urging a continuing program to protect these high-risk groups in order to prevent a recurrence of this excess mortality.

The high-risk groups who contribute most to the excess deaths and who the Public Health Service believes should be routinely immunized each year are:

1. Persons of all ages who suffer from chronic debilitating disease, in particular: (*a*) rheumatic heart disease, especially mitral stenosis (*b*) other cardiovascular diseases, such as arteriosclerotic heart disease or hypertension — especially patients with evidence of frank or incipient insufficiency; (*c*) chronic bronchopulmonary disease, for example, chronic asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, or pulmonary tuberculosis; (*d*) diabetes mellitus; (*e*) Addison's disease.

2. Pregnant women.

3. All persons 65 years or older.

The adult dosage recommended by the advisory committee for initial immunization is 1.0 cc. (500 cca units) of polyvalent vaccine, administered subcutaneously on two occasions separated by two or more months. Preferably, the first dose would be given no later than September 1 and the second no later than November 1. Persons previously immunized with polyvalent vaccine should be reinoculated with a single booster dose of 1.0 cc. subcutaneously each fall, prior to November 1. The only contraindication to vaccination would be a history of food allergy to eggs or chicken or a prior history of allergic reaction to an egg-produced vaccine, such as the commercial influenza product.

The time to start such a program is before the onset of the influenza season this fall. In the past, influenza vaccination has been sparse and sporadic, and primarily in response to an epidemic or the threat of an epidemic. The unpredictability of recurrence of influenza and its continued endemic oc-

currence are well known. Therefore, the Public Health Service strongly recommends that immunization of these high-risk groups be started now and continued annually, regardless of the predicted incidence of influenza for specific years.

The members of the Surgeon General's Advisory Committee on Influenza Research are: Colin M. MacLeod, M.D., chairman, University of Pennsylvania, Fred M. Davenport, M.D., University of Michigan, Morris Schaeffer, M.D., bureau of laboratories of the City of New York Health Department, George Burch, M.D., Tulane University, Dorland J. Davis, M.D., National Institute of Allergy and Infectious Diseases, Public Health Service, Thomas F. Sellers, M.D., Georgia State Department of Health, and Glenn S. Usher, M.D., Communicable Disease Center, Public Health Service.

Influenza Facts*

Introduction

For many years influenza has been recognized as a major recurrent cause of death. This was never more clearly demonstrated than in the catastrophic pandemic of 1918. Within the past three years, epidemic influenza has again been shown to be a major public health menace.

In the fall of 1957 and spring of 1958 an extensive epidemic of influenza occurred in the United States as well as the rest of the world. This was caused by a new antigenic variant of Type A influenza virus, subsequently termed Type A_2 or "Asian" influenza. This epidemic was associated with marked excess mortality particularly among older age groups and among those with associated chronic illness. During the first three months of 1960 another epidemic of Asian influenza occurred in the United States; excess mortality was again particularly evident among the aged and chronically ill. As was brought out at the International Conference on Asian Influenza, National Institutes of Health, February, 1960, analysis of the mortality associated with these epidemics has served to re-emphasize the fact that individuals in age groups 65 years and over, and individuals with certain chronic diseases are at increased risk of death from influenza. Polyvalent, influenza virus vaccine, re-evaluated within the past several years, has been shown to be of definite value in preventing influenza. Annual immunization of persons at high risk of death from influenza has been strongly recommended by the Public Health Service Advisory Committee on Influenza Research as a protective measure for this segment of the population. Presented here are the background, rationale, and recommendations for carrying out routine immunization of these persons.

*Communicable Disease Center, Public Health Service.

Mortality Due to Influenza—1957-1960

The United States has recently experienced three epidemic waves of Asian influenza. The first two waves appeared in the last quarter of 1957 and the first quarter of 1958 as a part of the world-wide pandemic; the third arose abruptly in the early winter months of 1960.

The lethal impact of an influenza epidemic is reflected not only in the excess mortality due to influenza and pneumonia and in the excess of deaths due to cardiovascular or renal disease, but a further reliable measure of an influenza epidemic is the total excess of observed deaths over the normal number of expected deaths during the same period. The calculations presented in the table show mortality in excess of seasonal expectancy after correction for population growth. The number of excess deaths are shown by age, and by selected causes during the three epidemic periods.

Age Group	1957 Oct.-Dec.	1958 Jan.-Mar.	1960 Jan.-Mar.
Under 1	600	200	-3,200*
1-14	1,300	100	100
15-24	1,000	300	200
25-44	3,600	400	2,200
45-64	10,400	5,300	6,100
65 and over	22,400	13,400	21,300
All Ages	39,300	20,000	26,700
Selected Causes			
Pneumonia-Influenza	12,100	6,000	10,600
Cardiovascular-renal	18,700	13,000	12,200
All other causes	8,500	1,000	3,900
Total	39,300	20,000	26,700

*The infant mortality rate in January 1960 was the lowest rate ever recorded for January. Monthly Vital Statistics Report 9(3)2, May 18, 1960.

Table I. Estimated Excess Mortality by Age and Selected Causes, United States, 1957-58 and 1960[1, 14]

It may be seen that a total of almost 60,000 excess deaths was recorded in the six months period October-March 1957-58, with twice the excess mortality in the first as compared to the second wave. The 1960 epidemic contributed an excess of over 26,000 deaths. In each period, the population over 65 accounted for more than half of the number of excess deaths. During the first period, a relatively higher proportion of younger age groups was included in the death toll, but in succeeding epidemics, the older age groups showed increasing proportions. In the most recent epidemic, over three-fourths of the total excess deaths occurred among older persons.

Of the excess deaths, nearly 85 percent were attributed to two categories: pneumonia-influenza (33 percent) and cardiovascular-renal diseases (51 percent). It is apparent that the population at highest risk are older persons, especially those who have suffered cardiovascular illness.

Because of the large number of excess deaths due to these recent outbreaks of influenza, the Public Health Service recommends a continuing effort to reduce this excess through the immunization of patients in selected groups known to have an increased risk of death from influenza.

Task for 1960—Protection for the Aged and Chronically Ill

The Public Health Service Advisory Committee on Influenza Research has recommended that persons of all ages who have chronic cardiovascular, pulmonary, renal, or metabolic diseases, and pregnant women be immunized against influenza as a routine practice, since patients in these categories have experienced the highest mortality rates.

The specific recommendations of the Public Health Service for routine immunization include:

A. Persons at all ages who suffer from chronic debilitating disease; e.g., cardiovascular, pulmonary, renal, or metabolic disorders; in particular—

1. patients with rheumatic heart disease, especially those with mitral stenosis,
2. patients with other cardiovascular disorders, such as arteriosclerotic or hypertensive heart disease; especially those with evidence of frank or incipient cardiac insufficiency.
3. patients with chronic broncho-pulmonary disease; e.g., chronic asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, and pulmonary tuberculosis,
4. persons with diabetes mellitus, and
5. patients with Addison's disease.

B. Pregnant women.

C. All persons 65 years and older.

Influenza may not be more likely to attack persons in these specified groups than others; the occurrence of influenza in these persons, however, is more likely to be a life-threatening event. Influenza alone places a severe stress on cardiovascular and pulmonary function, and the frequency of bacterial complications is greatly increased in patients with chronic cardiovascular-renal and pulmonary disease.

The Vaccine

Description. The commercial influenza vaccine is an aqueous, polyvalent, killed-virus preparation, with a prescribed antigenic composition for 1960 as follows:

Type	Strain	CCA Units per cc.
A	PR8	100
A_1	Ann Arbor 1/57	100
A_2	Asian	200
B	Great Lakes 1739/54	100

The total antigenic potency of the vaccine is 500 CCA units per cc.

Manufacturers. The following pharmaceutical houses are licensed manufacturers of influenza vaccine:

Eli Lilly and Company, Indianapolis, Indiana

Lederle Laboratories, Pearl River, New York

Merck, Sharpe, and Dohme, Philadelphia, Pennsylvania

National Drug Company, Philadelphia, Pennsylvania

Parke-Davis and Company, Detroit, Michigan

Charles Pfizer and Company, Brooklyn, New York

Pitman-Moore Company, Indianapolis, Indiana

Dosage. The recommended adult dose of polyvalent vaccine for the initial immunization is 1.0 cc. (500 CCA units) subcutaneously, administered on two occasions separated by two or more months. Preferably the schedule of vaccination should be completed by November 1. Each fall thereafter, prior to November 1, persons in the groups specified to receive continuing protection and who have already had the initial immunizing series should receive a 1.0 cc. booster dose of the vaccine subcutaneously.

Effectiveness. Numerous reports[2-10] of vaccine evaluations carried out within recent years have demonstrated that influenza vaccination may be expected to be from 60-75 per cent effective in preventing the disease.

Reactions. In adult populations, a low incidence of side reactions may be expected. These are most frequently in the form of transient febrile responses or local tenderness at the injection site. Penicillin sensitivity need not be of concern when injecting influenza vaccine, for current preparations contain none of this antibiotic. Since the vaccine is produced in eggs, the Advisory Committee has advised *against* vaccination for persons who are unable to eat eggs or chicken because of food allergy, or who have had a definite allergic reaction, whether urticarial, asthmatic, or anaphylactic, on previous inoculation of an egg vaccine.

Why a Continuing Vaccination Program Now for the Chronically Ill?

In the past, influenza immunization programs have tended to be intermittent, predominately in response to public concern before and during epidemic periods. Such epidemics tend to recur in cycles of unpredictable periodicity, but an endemic incidence occurs continually. For these reasons immunization of the specified high-risk groups is recommended to begin now and should be continued annually, regardless of the predicted incidence of influenza for a particular year.

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MEDICAL  CENTER

Message from the Dean

During one of the sectional meetings of the Oklahoma Conference on Aging last June, a prominent physician of northwest Oklahoma stated that the medically needy aged were being seen by doctors but the problem was that the University Hospitals would not take these people when they were referred.

In August, one of the County Commissioners in Oklahoma County told a delegation from the Oklahoma City Hospital Council that there really would not be much of a problem concerning the medically indigent in Oklahoma County if the University Hospitals would take a larger share of these patients.

The two statements indicate that certain individuals think of the University Hospitals primarily as charity institutions with no other obligation than to care for most of the medically needy of the state. It is a continuing problem to inform the public on matters such as these and we take every opportunity to do so.

The statutes creating the University Hospitals clearly indicate that they are to serve the teaching needs of the School of Medicine. Obviously they cannot serve these needs without patients, and the better the care, the better the teaching—or reverse the two if you prefer. Any way you say it, many patients receive a lot of good care as a by-product of the teaching program and many more could be served if more adequate hospital facilities and funds were available.

In order to have a balanced teaching program there must be a properly balanced variety of patients. With the very limited number of beds at University Hospitals this cannot be achieved by chance, or by taking patients on a first come basis. There must be careful selection of the patients to be admitted.

If the citizens of the state want the University Hospitals to take a greater part in providing care for the medically needy, then funds must be provided for expanding the physical plant, to meet the added operating costs to train the necessary personnel. If this is not done, then many who seek and need to be admitted to the University Hospitals, will, of necessity, have to be turned away.

Mark R Everett

Adrenal Steroids appear to be clearly indicated in patients with the nephrotic syndrome; sometimes helpful in patients with renal lesion of generalized collagen disease, and probably contraindicated in chronic nephritis and renal insufficiency.

The Use of Adrenal Steroids in Renal Disease*

C. WILLIAM DAESCHNER, JR., M.D.

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Doctor Daeschner is certified by the American Board of Pediatrics and is a member of the American Academy of Pediatrics, the Southern Society for Pediatric Research, the American Federation for Clinical Research and the Southern Society for Clinical Research.

IN THE DECADE since the introduction into clinical medicine of the adrenal glucocorticoid compounds,[1] cortisone and its derivatives have been used as anti-inflammatory agents in a wide variety of human diseases.[2] In relation to the kidney they appear to have established a firm place in the management of the uncomplicated nephrotic syndrome[3-7] and an equally promising, though somewhat less successful, role in the uncomplicated nephrosis of adults.[8-12] In other areas their usefulness is not clearly established (*e.g.*, lupus nephritis, anaphylactoid purpura with nephritis, subacute and acute nephritis) while in patients with reduced renal function the incidence of complications often contraindicates their use.[13-22]

A principal problem in the selection of patients for steroid therapy is caused by our lack of knowledge of the etiology of the renal lesion and of the way in which adrenal glucocorticoid compounds influence the morphologic changes. This problem of the classification of so-called hypersensitivity diseases of the kidney for the purposes of prognosis and treatment has long created a major medical impasse. The pathologist, seeing end stage renal disease, was prone to place all patients in the category of chronic nephritis while the clinician, observing several different clinical syndromes during life, found a unitarian concept difficult to accept. The advent of successful management of the nephrotic syndrome with cortisone widened the breach in that these patients appeared to get well during steroid therapy while classic chronic glomerulonephritis frequently did not improve or was made worse by steroid therapy. This disparity becomes less formidable if we look at this problem in the light of the work of Jones[23] and of Mellors and Ortega[24] and examine the response of the kidney to injury.

Figure 1 shows the familiar picture of the glomerular tuft with its afferent arteriole breaking up into multiple capillaries which again join to form the efferent arteriole. The capillaries of this vascular bed are composed of three layers: the lining intima, an epithelial covering, and a thin basement membrane between these two layers. Preservation of glomerular structure, particularly the basement membrane, seems to be the focal point of survival or death of the nephron in hypersensitivity diseases of the kidney.[23-25] Electron microscopy and special

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Presented at the Third Oklahoma Colloquy on Advances in Medicine, 1960.



Figure 1. Diagrammatic representation of the structure of the glomerular tuft, preservation of which seems to be the focal point of survival or death in renal disease.

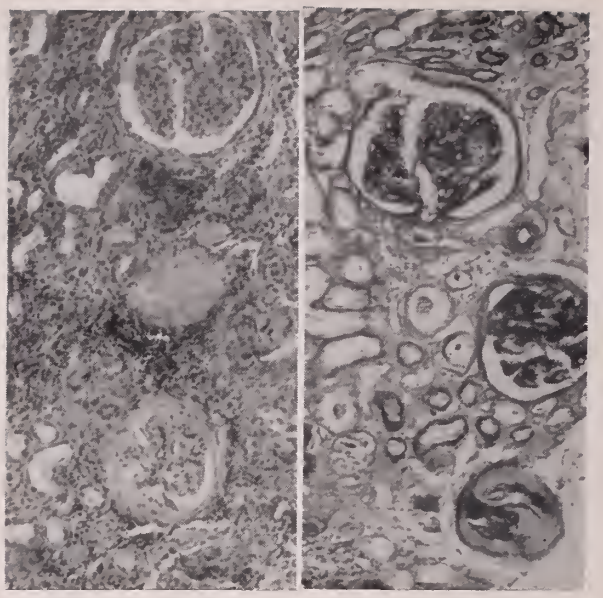


Figure 2 A & B. Light microscopy of a section of kidney obtained by percutaneous biopsy to illustrate the marked glomerulosclerosis that occurs in a patient with a long-standing untreated nephrotic syndrome. (A) Standard H&E preparation, and (B) PAS technique for connective tissue elements.

connective tissue stains for light microscopy have now well established the existence of the basement membrane as a potential connective tissue space.[26] Like other parts of the body in which the major response to injury occurs in the connective tissue elements, the glomerulus responds by changes in the supporting connective tissue of its capillaries. Thus, regardless of the noxious agent, the final changes are limited to the potential reaction of the glomerular connective tissue. It is then readily seen that a multitude of etiologic circumstances are compatible with the production of a similar glomerular lesion and a variety of clinical syndromes.

Why then the difference in steroid responsiveness of various related renal diseases (*e.g.*, acute nephritis, the nephrotic syndrome, subacute nephritis, and chronic nephritis)? A partial answer may be found in the duration and degree of the injury. Acute nephritis represents a brief insult from which there is complete recovery and no longstanding ischemia to encourage or perpetuate scar formation. Significantly persistent basement membrane changes are absent in the glomerulus in acute nephritis. Chronic nephritis, conversely, is often clinically inapparent yet active for long periods so that the diagnosis is first established only after fairly extensive basement membrane thickening and occlusive scarring of glomeruli is present (figure 2). The nephrotic sydrome occupies an intermediate position. It begins with massive proteinuria, but this appears to be well tolerated by the kidney for short periods of time. If adequate steroid treatment of the nephrotic syndrome is instituted early, basement membrane scarring is minimized and kidney structure and function are preserved (figure 3.) However, if nephrotic proteinuria is allowed to continue for long periods, scarring as evidenced by thickening of the glomerular basement membranes becomes prominent and functional changes follow, leading to an end stage kidney similar to that of chronic glomerulonephritis. These patients, as might be expected, are poorly responsive or completely refractory to steroid therapy.[7]

This mode of thinking, if projected back to the early stages of chronic or subacute nephritis, suggests that here, too, we may one day find that steroid therapy will be of value in preventing the relentless progression of morphologic destruction of the nephron. Recent workers[25,27,28] have emphasized the use of renal biopsy in an effort to discover the early lesions of such chronic renal disease as the nephritis of lupus erythematosis so that attempts at treatment may be instituted

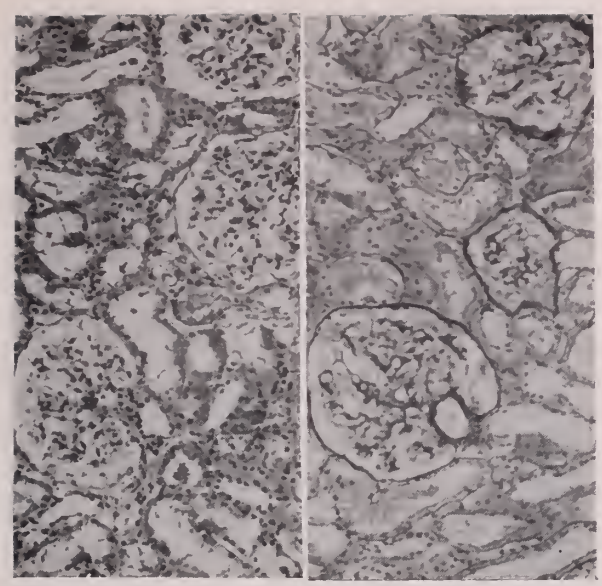


Figure 3 A & B. Standard H&E (A) and PAS (B) stains of a renal biopsy specimen from a patient with the nephrotic syndrome who had been successfully treated with steroids one year earlier. He remained free of all clinical and chemical evidence of nephrosis in the interim.

prior to the appearance of the extensive and permanent scarring.

With these thoughts as a background, we can now examine individually some of the areas of usefulness of steroids in renal disease. Table 1 indicates the areas in which the use of steroids has been shown to be of definite value, those areas where the probable value in at least arresting the course of the disease has been demonstrated, and finally those areas where use is of questionable value or where use is clearly contraindicated.

Definite Value
1. Idiopathic nephrotic syndrome of childhood

Probable Value
1. Idiopathic nephrotic syndrome in adults
2. Nephrotic syndrome associated with disseminated lupus erythematosis

Questionable Value
1. Nephrotic syndrome associated with amyloidosis
2. Nephrotic phase of chronic glomerulonephritis
3. Acute glomerulonephritis
4. Subacute glomerulonephritis
5. Anaphylactoid purpura with nephritis

Probable Contraindication
1. Marked renal insufficiency from any cause
2. Renal disease secondary to or associated with severe hypertension
3. Pyelonephritis

Table 1. Anti-infalmmatory steroids in the treatment of renal disease.

It might be well at the onset to state and partially attempt to justify the dose of steroids used in renal disease. Since patients with diseases of the kidney do not have defective hydrocortisone synthesis or abnormally low levels of circulating or urinary glucocorticoids, the use of cortisone in this situation cannot be considered replacement therapy in the usual physiologic sense that we use replacement therapy when giving thyroid to the hypothyroid or cortisone to the patient with virilizing adrenal hyperplasia. Studies have shown that the effective quantity of cortisone in most renal diseases greatly exceeds the amount necessary for physiologic replacement. These relatively massive amounts of cortisone used for antiinflammatory rather than physiologic purposes have been termed pharmacologic doses.[29] The precise justification of these doses is difficult since the mode of action of cortisone in the hypersensitivity diseases remains obscure. However, fairly extensive clinical experience has now accumulated to support the necessity and effectiveness of these doses of cortisone and cortisone-like compounds.

The pharmacologic dose of cortisone and equivalent amount of other related steroids as used in the management of the nephrotic syndrome is shown in table 2. The dose is estimated in terms of square meters of body surface area for convenience since, at least in pediatric practice, the range of body weight is extremely large and would require multiple per kilogram dose schedules. A dotted line in table 1 separates cortisone

Steroid	mgm/M²/day
Cortisone	250-300
Hydrocortisone	200-250
.	
Prednisone	50-60
Prednisolone	50-60
Triamcinolone	40-50
Methyl prednisolone	40-50
Dexamethasone	7.5-10

Table 2. The equivalent pharmacologic dose of various adrenal glucocorticoids and synthetic derivatives used daily in treatment of the nephrotic syndrome.

	No.	No. Well	No. Active	No. Dead
Patients first seen after three months of illness	18	3 (17%)	13 (72%)	2 (11%)
Patients seen within first three months of illness	32	30 (94%)	2 (6%)	0

Table 3. Present status of 50 patients with the nephrotic syndrome treated in the past 3½ years.

and hydrocortisone from a listing of some of the ever increasing number of delta-1 substituted derivatives. In general, the latter appear to have less influence on water and salt metabolism and upon blood pressure than do the former but exert a comparable degree of anti-inflammatory activity. In recent years our experience has been limited to various members of the delta-1 substituted group, principally prednisolone and triamcinolone.

Management of the idiopathic nephrotic syndrome, a not uncommon problem in childhood, was singularly difficult and unsuccessful prior to the introduction of steroids. In the few long term follow-up studies that were carried out prior to the therapeutic use of cortisone, almost no twenty-year survivors were discovered.[30] With the early successes in the elimination of nephrotic proteinuria and restoration of these patients to clinical as well as chemical normalcy, great doubt was expressed by many observers as to the long term value of such treatment; and there were many who, recognizing the tendency of the idiopathic nephrotic syndrome to spontaneous remissions following a variety of therapeautic measures, denied any specific therapeutic role to cortisone. However, ten years later, most workers now state unequivocally that mortality rates are decreasing and patients are clearly improved in a manner not seen in the presteroid era. Our own experience[7] confirms this and at the same time emphasizes the need for early treatment if this good prognosis is to be achieved (table 3).

Preparation
- Freedom from all evidence of infection
- Renal biopsy evaluation if history is doubtful as to existence of prior renal disease or duration of the nephrotic syndrome

Steroid Therapy
- Daily dose—see table 2—in 4 equally divided doses
- Continue until all urines are entirely free of protein for 48 hours
- Reduce by 2.0 mgm/dose for 3 days until a dose level of 2.0 mgm every 8 hours is reached
- Discontinue for 3 days

Table 4. Management of the nephrotic syndrome.

The plan of treatment as outlined in table 4, with minor individual variations, has been in use in our clinic for the past four years. In this period all fresh cases have cleared completely and, with the exception of three who have moved away, are being followed and at this time are free of proteinuria and other evidence of the nephrotic syndrome.

The duration of treatment in fresh, uncomplicated cases usually does not exceed 14 to 16 days. However, patients who have had longstanding proteinuria (even trace to 1+ amounts) or previous treatment that was terminated prematurely must frequently be treated for 21 to 28 days. Although we occasionally continue treatment as long as 35 days in very resistant subjects, we have not to date seen any patient who improved after the 28th day of high dose steroid therapy.

In those patients who are not entirely protein free at the end of the period of intensive steroid therapy, one of two regimes is followed. A patient is either placed on standard therapeutic doses on Monday, Tuesday and Wednesday of each week with no steroids given the rest of the week and this continued until proteinuria has cleared completely, or the patient is placed on one-third to one-fourth the standard therapeutic dose and this continued on a daily basis until the patient is free of proteinuria. Following the period of initial treatment a prophylactic

- Daily dose—see table 2—in three equally divided doses on Monday, Tuesday, and Wednesday of each week for 6-12 months
- Penicillin-V, 125 mgm. daily for 12-18 months
- Daily urine test with sulfonsalicylic acid solution for an indefinite period of time
- Social isolation to prevent infections
- No immunizations until free of proteinuria for 12-18 months

Table 5. Prophylactic measures

Minor
• Obesity and abnormal "Cushingoid" distribution of fat
• Striae and darkening of scars
• Hirsutism and changes in hair color
• Moniliasis
• Mild retention of water and salt
• Mild elevation of blood pressure
Major
• Potentiation or obscuring of infectious processes
• Marked elevations of blood pressure with hypertensive encephalopathy
• Convulsions and status epilepticus
• Personality changes
• Severe anasarca
• Hypokalemic alkalosis
• Osteoporosis with fractures
• Insulin resistant diabetes mellitus

Table 6. Complications encountered in the use of anti-inflammatory steroids in the management of the nephrotic syndrome.

regime is introduced. The prophylactic steroid and supportive therapy shown in table 5 is based upon the idea introduced by Lange,[31] who suggested that the antigen-antibody reaction thought to be responsible for nephrotic proteinuria requires 5-7 days to develop. The interposition of a blocking dose of steroids at intervals not longer than four days should prevent this while lessening the tendency to adrenal atrophy associated with continuous steroid therapy. Others have discounted this idea and given prophylactic steroids daily in doses of one-half to one-fourth the initial therapeutic level or have omitted prophylactic steroid therapy entirely. Our own experience has been good with the three day program as recommended by Lange.

Retreatment with steroids is carried out whenever proteinuria appears for more than 24 hours. These treatments usually require only 3-7 days, and the patient is then returned to the prophylactic schedule. While we recognize that some of these recurrences of trace to 1+ proteinuria may have cleared spontaneously in a few days, the risk of delay leading to a fixed or unresponsive proteinuria has led us to this criterion for retreatment.[7]

The nephrotic syndrome in adult subjects is more commonly associated with other systemic conditions and pre-existing renal disease. In spite of this, good results have been obtained in some patients[8-12] who have received a regime similar to that described for children. The child or adult with the nephrotic syndrome associated with disseminated lupus erythematosis[16, 21] or anaphylactoid purpura[22, 25] presents a much more difficult problem. In most of these subjects some degree of glomerular scarring is present at the time the patient's renal involvement is detected. In addition, the basic disease often requires a prolonged period of steroid therapy. It is therefore our policy in these patients to begin treatment with steroids in appropriate therapeutic doses (*e.g.*, triamcinolone 40-50 mgm/M^2/day) but after 3-4 weeks of treatment to begin a very gradual reduction in dose and to continue with the least dose that will control symptoms or the highest dose that is not associated with prohibitive side effects. The latter doses are then given for periods of 8-12 months in an effort to minimize progression of the renal lesion. In our experience, complete restoration to normalcy in patients with evidence of kidney disease and lupus has not occurred. However, certain recent reports indicate that prolonged periods of intensive treatment may greatly extend life and in some cases produce inhibition of the normally progressive renal process.[21] The use of steroids in the treatment of patients with chronic renal insufficiency is usually associated with a progressive rise in the BUN and blood pressure and often with marked retention of water and salt. In such patients steroid therapy is not associated with improvement in the basic process and frequently leads to deterioration of the patient's overall condition. A similar contraindication to the use of steroid therapy exists in the patient with chronic pyelonephritis. These patients appear to have chronic destructive renal disease on the basis of a continuous or recurrent infection with micro-organisms. The use of steroids in suppurative diseases generally is fraught with the dangers of increased activation and dissemination of the infection; and though there is no reported experience with steroids in pyelonephritis, a therapeutic trial in this area would seem not only fraught with dangers but not likely to be beneficial.

Although relatively little evidence is available a few workers have suggested that ste-

roid therapy may favorably influence the course of early subacute nephritis. Other workers deny this, and the small number of reports suggests that little real benefit has accrued from the use of steroids in subacute nephritis.[17-20] The use of steroids in acute glomerulonephritis is frequently associated with a rising BUN, a reduction in urine volume, and an elevation in blood pressure—though again a small number of favorable reports are available.

As indicated by the above discussion, the complications of steroid therapy will vary with the condition of the patient, the type of disease being treated, and the length of time high dose steroid therapy is continued. For convenience the complications in table 6 are grouped under those that might be considered mild and those usually considered major. In general, continued steroid therapy in the presence of minor complications will not compromise the patient's well being significantly. However, it can readily be appreciated that several of these minor complications might constitute a major contraindication to further intensive steroid therapy. The major complications individually are usually sufficient indication for the discontinuation of steroid therapy or at least for a marked reduction in dose. Though these are uncommon with the newer delta-1 steroids, they may still be encountered in any patient whose treatment continues for more than two or three weeks.

Summary

It would appear that adrenal steroid therapy in the child with the nephrotic syndrome is clearly indicated. Though not as often successful, steroid therapy of the adult with the nephrotic syndrome is probably equally desirable. The latter may require longer periods of treatment, however. The use of steroids in the other hypersensitivity diseases in which the kidney is involved seems indicated until better and more specific forms of therapy are available and, if used intensively for long periods of time, appear to prolong life and minimize the progression of the fatal renal lesion. The use of steroid therapy in acute and subacute nephritis continues to be the subject of some controversy, but it would appear that there is little firm evidence for its value in this area. Steroid therapy in the patient with renal insufficiency or pyelonephritis is clearly contraindicated.

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ABSTRACTS

Diagnostic Problems Presented By the Leukemoid Reaction

JACK D. WELSH* and WILLIAM F. DENNY**

Medical Times—January 1960

1. The findings in sixteen patients seen over a three-year period who fulfilled the strict criteria of a leukemoid reaction as set forth by Hill and Duncan were reviewed. This phenomenon accompanied malignancy in five patients, infection in eight patients, and was associated with miscellaneous conditions in three.

2. Illustrative case records are presented to show some of the difficulties in deciding whether a patient has a leukemoid reaction or leukemia.

3. A discussion of the laboratory data in problem patients is given and the importance of evaluating all evidence before instituting antileukemic therapy is emphasized.

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Prestige and Social Interaction On a Metabolic Ward

WILLIAM W. SCHOTTSTAEDT,* RUTH H. PINSKY** DAVID MACKLER*** and STEWART WOLF****

Psychosomatic Medicine, 21: 131-141, March-April 1959

The events occurring during this study furnish striking evidence of the important effects of prestige and group attitudes upon individual behavior. One patient was able to remain on his diet partly because of the prevailing attitude that to fail in this was a sign of "weakness." A second patient who failed to adhere to the dietary regimen suffered a serious loss of prestige among his fellow patients. A third patient left the hospital before quantitative studies had been started, largely, it was thought, because of her inability to achieve a position of esteem within the patient group.

The dramatic sequence of events involving Mrs. Dietrick and Mrs. Parry drew much of its emotional force from the impact of group attitudes on the individuals involved. Without the background of competition for the place of eminence on the ward, much of what took place would not have. Group opinions affected the dress and manner of Mrs. Dietrick early in the study, influenced participation in ward activities of both women, occasioned requests for special privileges, and probably contributed to the complete withdrawal of Mrs. Dietrick observed at the end of the study.

Another sequence of events of great interest in this regard was that which began with lapses from the strict dietary regimen prescribed for Mr. Potts. Here was a miniature study of delinquency beginning in a group leader. Only one person followed his lead, the man closest to him, who felt somewhat guilty because he had asked to be moved out of the room they had shared. General disapproval of the group and reprimand by the staff ended this deviation from prescribed behavior.

The development of undesirable side effects from placebo administration also seemed to be related to interpersonal relationships on the ward. Although Mr. Potts had received a variety of agents without such effects, he developed feelings of giddiness and malaise while receiving a placebo given to him at a time when he was feeling rejected by a patient to whom he had been very close.

All of these observations indicate the importance of interaction between internal psychologic factors and social forces within the environment in determining behavior and response to treatment. The observations also emphasize the importance of understanding the personality of the patient and the social structure of the therapeutic setting for all those who are concerned with medical care. It is evident that close collaboration between investigators in the social and medical sciences can make a contribution to both fields.

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Effect of Prolonged Thyroid Administration On Aged Male Rats

J. F. LHOTKA,* L. G. McARTHUR** and A. A. HELLBAUM***

Nature 184: 1149-1150, 1959

Purified thyroid extract (Proloid) was orally administered to male rate (400 gm.) from 12 months to sacrifice at 21 months in three daily dosage series equivalent to 15, 60 and 240 mgm respectively for a 70 kgm. human. At necropsy all principal organs were grossly examined and routinely processed by the paraffin method after neutral formalin fixation. Sections were stained histochemically for neutral and acid polysaccharides and histologically for reticular, collagenic, and elastic connective tissues. Sections were then compared with untreated control sections and with each other as well as with sections obtained from I^{131} induced hypothyroid rats. Detailed examinations revealed that other than expected toxic alterations in the 240 mgm series there were no consistent pathologic architectural variations in the connective tissues of these animals, in the vascular structures and in the general epithelial tissues. It would appear that induced hyperthyroidism under the conditions of this experiment has little effect on these tissues in the aged male rat.

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***Professor of Pharmacology.

Alums Celebrate Golden Anniversary



W. F. Lewis, M.D., Lawton, took office as president of the Alumni Association of the University of Oklahoma School of Medicine at the annual banquet and dance October 23.

Alumni of the University of Oklahoma School of Medicine pledged support of a ten-year development program for the Medical Center at their annual membership meeting and golden anniversary celebration October 23 in the Skirvin Tower Hotel, Oklahoma City.

A record total of 306 persons attended the banquet and dance marking the 50th birthday of the founding of the four-year medical school.

They also:

ONE—Elected W. F. Lewis, M.D., Lawton, president, succeeding John R. Taylor, M.D., Kingfisher.

TWO—Bestowed "Professor Emeritus of the Year" honors upon Robert Mayburn Howard, M.D., Oklahoma City, 82-year-old professor emeritus of surgery and a member of the original faculty of the four-year school.

In endorsing plans for Medical Center growth, the Alumni Association promised active backing to secure implementation of a ten-year proposal which has been approved by University of Oklahoma Regents as a statement of medical education needs.

Recommended expenditures over the decade are $17,029,000 for land, buildings, equipment, repairs and modernization.

In addition to Doctor Lewis, the Alumni named Samuel T. Moore, M.D., Oklahoma City, vice-president; Wayne A. Starkey, M.D., Altus, secretary; and Robert W. Lowrey, M.D., Poteau, treasurer.

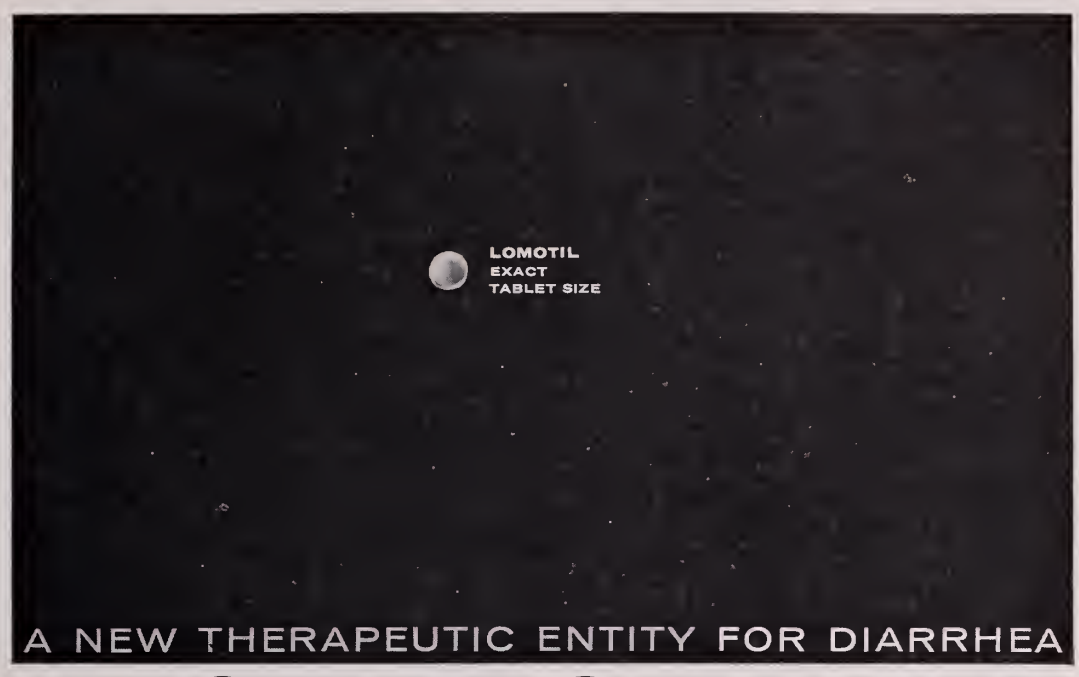
Five new trustees were installed. They are: Richard Lee Winters, M.D., Poteau; Clifford A. Traverse, M.D., Alva; William R. Cheatwood, M.D., Duncan; William K. Ishmael, M.D., Oklahoma City, and Joe L. Spann, M.D., Tulsa.

The program included recognition of the reunion classes of every fifth year from 1910 (Eva Wells, M.D., Oklahoma City, was the only member present), through 1955.

Honored guests included the only other known living members of the 1910 faculty, Everett S. Lain, M.D., professor emeritus of dermatology, and Joseph T. Martin, M.D., professor emeritus of medicine, both of Oklahoma City and both past recipients of the Alumni citation.



"Professor Emeritus of the Year" award is presented Robert Mayburn Howard, M.D., left, Oklahoma City, professor emeritus of surgery, by L. J. Starry, M.D., professor of surgery, at the alumni banquet commemorating the 50th anniversary of the four-year-medical school. He was a member of the 1910 faculty. With him is Mrs. Howard.



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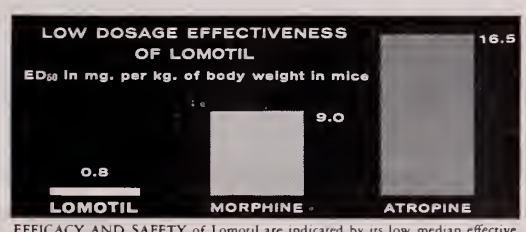
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Special Articles

Big Government: Threat to Our Free Market



LEONARD E. READ
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IT IS hardly helpful to discuss threats to the free market without first discussing freedom itself.

Freedom, as I see it, is of two general types: psychological and sociological.

Each of us is entitled to the fullest opportunity in achieving psychological freedom, this having to do with man freeing himself from his own fears, his own superstitions, his own frustrations, his own meager perceptions, his own ignorance. This is a chore of infinite dimensions.

On the other hand, we should not have to spend a moment of our time on the sociological aspect of freedom, this having to do with man imposing his will by force upon other men; this having to do with authoritarianism. What moral right, for instance, has any person on this earth to control or to forcibly direct what another shall discover, invent, create; where he shall work; what wage he shall receive; what hours he shall labor, or what and with whom he shall exchange? Most of you will agree that no person has any such right, nor any two persons, nor any 180,000,000 persons, nor any agency, government or otherwise, which the 180,000,000 may contrive.

Man's moral right to inhibit the action of others is extremely limited. To demonstrate: man's energy manifests itself in two ways—destructively and creatively. If I were to use my hand to paint a picture, to write a book, to build a house, to strew seed, these would be examples of my energy manifesting itself creatively. If I were to make a fist of this same hand and sock you in the eye, that would be an example of my energy manifesting itself destructively.

Man has the moral right to inhibit the destructive energies of others; he has no moral right to control or to forcibly direct the creative energies of others. Yet, herein lies the root of this issue. To establish the fact that it is the issue, let us take a few brief glimpses at our own history.

A Bad Beginning

We began in a condition of pure and unadulterated communism. I refer to the year 1620—to our Pilgrim Fathers. It made no difference how much or how little any member of the colony produced; everything went into a common warehouse under authority,

Presented before the Oklahoma County Medical Society, Oklahoma City, November 22, 1960.

and the authority doled out the proceeds according to the authority's idea of the need. This procedure—from each according to his ability, to each according to his need—was held forth more than two centuries later by Karl Marx as the ideal of the Communist party.

There was a compelling reason why this communalistic or communistic practice was discontinued. Many members of the colony had starved. Too often the warehouse ran out of provender. Governor Bradford, during the third winter, in discussing the problem with the remaining members of the colony, decided that, come next spring, they would forego the communistic way of life and try another plan—that each was to have what he himself produced! Came next spring and not only were the fathers in the field, but the mothers and the children were there also.

It was the adoption of this private property practice, the acceptance that each had a right to the fruits of his own labor, the approval of "to each according to his merit," that began the private property way of life, that initiated an era of progress and prosperity.

The Revolution

Sooner or later, such a way of life was certain to result in revolutionary political ideas. It did result in the American Revolution. This was not essentially an armed conflict with King George III—not Valley Forge, Yorktown, and other military conflicts. Instead, it was a revolutionary idea! Here we have it, the very essence of Americanism:

> "We hold these truths to be self-evident; that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty and the pursuit of happiness. That to secure these rights, governments are instituted among men . . ."

This was at once a spiritual, a political and an economic concept. It was spiritual in that it proclaimed the Creator as the Source of Rights; political in that it implicitly denied that the State was the source of rights; and economic in this sense: If an individual has a right to his life, it follows that he has a right to sustain his life, the sustenance of life being nothing more nor less than the fruits of one's own labor.

Instruments of Freedom

The Constitution and the Bill or Rights were political instruments for the purpose of implementing this revolutionary idea. These American political instruments were not aimed at prohibitions against the people; they were limitations on government, and unprecedentedly successful limitations. Government was limited to inhibiting and penalizing the destructive actions of men, of doing for everyone equally that which each had a moral right to do for himself, of invoking a common justice.*

What were the effects of thus limiting government? First, there wasn't a citizen who turned to government for succor. Government had nothing to dispense nor did it have the power to take from some and give to others. Under these circumstances the citizens assumed the responsibility for their own welfare. This made for a self-reliant people. Second, with government limited to inhibiting destructive actions and with no control over creative actions, the creative energies of the people were freed. The combination of self-reliance and the feeling of creative human energy seem to have had a major part in the phenomenon we refer to as the Miracle of America.

Pursuit of Power

However, something happened to this wonderful pattern. Government is nothing more or less than individuals organized into a compulsive apparatus; individuals who are no more immune to affluence and power over others than are the rest of us. These individuals, having a monopoly of force at their command, soon discovered that they could intrude into the creative activities and the productive enterprises that the citizens had reserved for themselves. They also found out that they could, by the use of force, collect the wherewithal to make up the deficits their operations incurred.

I would like to suggest that the extent to which government in America has departed from its negative function of inhibiting destructive actions and has entered into the control of creative actions, to that extent has

*Slavery was one of several exceptions to the American principle.

socialism or communism grown in our homeland; to that extent have private property, free market, limited government concepts and practices been destroyed.

Can we be at all precise in measuring the growth of socialism and the consequent loss of freedom? Not too precise, but we can get an idea of the trend by measuring the loss in freedom of choice the average citizen has experienced over the years with his income dollar.

A little more than a century ago the average citizen had a 95-98 per cent freedom of choice with each income dollar. That was because the take of government—federal, state, and local—was 2-5 per cent of all earned income. But, as government departed from its limited position and entered into enterprise after enterprise, and as it assumed more and more the resposibility for the welfare and prosperity of the citizens, the take of all earned income, percentagewise, increased. Today, the take is about 35 per cent.

Some persons who dislike facing up to problems contend that this is not too serious; that, on the average, the citizen still has 65 per cent freedom of choice with his income dollar, and that that's not bad. Let us, however, take no solace from this fact for it has been discovered that whenever the take of earned income by a nation gets to that high level where it is no longer politically expedient to collect the total sum by direct tax levies governments have, with the support of the people, resorted to inflation, which is to say resorted to an increase in money volume. As a rule, this point is reached between 20-25 per cent of the total earned income. The people support increases in money volume apparently because they feel they can have their cake and eat it too. In short, they can maintain their so-called benefits while escaping the payment of taxes directly.

Techniques of Inflation

Once governments used what was called coin clipping. The sovereign called in the coin of the realm, clipped off the edges, and returned the smaller pieces to the people. This was a good trick until the coins became too small to return.

During the French Revolutionary period, the government issued the assignat, this being irredeemable money supposedly secured by confiscated church properties. France was brought to a state of bankruptcy.

In the Argentine today only a portion of the huge federal expenditure can be defrayed by direct tax levies so the government merely prints billions of new pesos. The condition there is utterly chaotic.

Here in the U.S.A. our system of inflating has the merit of being so complicated that no one can understand it. We monetize debt! The more debt we have, the more money in circulation!

The Russians probably have the most honest system of dishonesty. The government forces the citizens to buy the government bonds and then the government cancels the bonds!

What I am suggesting is that inflation is the fiscal concomitant of socialism or the welfare state, call it what you will. Politically, it is utterly impossible to finance this type government except by inflation. Anyone who wishes to stop inflation has no choice whatever except to reduce the over-extended activities of government and the exorbitant costs which over-extended government make necessary.

Government in America has rather rapidly increased its take of earned income. Have we increased money volume? Yes, about 700 per cent since we began deficit financing and the monetization of debt. What has happened and is happening to dollar value and to the price level needs no more comment than the fact that our dollar has lost 52 per cent of its purchasing value since 1939.

To assess the fiscal consequences of government run riot, it is useful to take a look at France, which, in numerous economic respects, resembles the United States. In 1914 France began a program of governmental expansion, of the government assuming the responsibility for the welfare and prosperity of its citizens. It is clear that these governmental welfare and economic direction and control programs are more and more financed by inflating the money. The people too often demand this head-in-the-sand means of escaping the penalty of their errors. What, in the brief span of 46 years, has happened to

the value of the franc? It has lost more than 99½ per cent of its purchasing value!

And, what has happened to the price level? I recall having a dinner in Paris in World War I days. The price was five francs, the equivalent of a 1918 dollar. My next visit to Paris was in 1947. I took a friend to luncheon, admittedly to a fancier place than I visited when a soldier in War I. The check was for 3,400 francs. Two of us went to the same restaurant two years later and the check was for 4,100 francs. Today, a meal for two at this same restaurant is about 6,000 francs.

Visualize with me, please, a young Frenchman in 1914. He was 19 years of age, forethoughtful, concerned about 1960 when he would reach retirement. So to protect himself, he purchased a paid-up annuity; one that would return him 1,000 francs per month beginning January 1960. In 1914 he could have lived adequately on such an income. But, today, that 1,000 francs wouldn't purchase more than a fair meal—one meal in a whole month! Careful examination will reveal that the reason for this starvation conclusion is precisely the same reason that caused members of the Pilgrim Colony to starve: applied socialism!

Should you care to test the historical validity of the above cause and effect sequences, I would refer you to some of the countries that we regard as being in socialistic and financial difficulties. As short a time as 31 years ago, the take of earned income by government in Russia was 29 per cent, not 35 per cent as is the case in the U.S.A. today. At that time in Germany, it was 22 per cent; in France and England, it was 21 per cent. I repeat, we are now at 35 per cent and there isn't a single bulwark against greater and greater takes except unreliable and unpredictable political expediency.

Inflation, which follows over-extended government and the consequent costs thereof, is popularly referred to as creeping inflation and as galloping inflation. Be it noted, however, that all instances of galloping inflation were preceded by creeping inflation.

I wish to suggest that inflation in America will be ever so much more catastrophic here than it has been elsewhere and for a very simple season.

We are the most advanced division-of-labor society that ever existed, that is we are more specialized than any other people have ever been. This is by way of asserting that we are further removed from self-subsistence than other peoples, present or past. Indeed, we are so much specialized that every single one of us is totally dependent upon the free, uninhibited exchanges of our specializations. This is a self-evident fact.

Now, in a highly specialized economy, we do not and cannot exchange our specializations by barter. No one, for example, walks into a gas station and offers to exchange a goose for a gallon of petrol. In a highly specialized economy, we effect these exchanges by an economic circulatory system, our medium of exchange, our money. In some respects this economic circulatory system can be likened to the circulatory system of the body, the blood stream. What does the blood stream do? I do not know all of the things it does but I do know that it circularizes specializations. It picks up oxygen in the lungs and ingested food in the midsection and distributes these to the trillions of cells of the body. At these points, it picks up carbon dioxide and waste matters and carries those off. I could put a hypodermic needle in one of your veins, thinning your blood stream to the point where it would no longer perform this circularizing function, and when I reach that point we could speak of you quite accurately in the past tense. Similarly with our economic circulatory system, we can thin our medium of exchange to the point where it will no longer circularize these specilizations of ours, and when we reach that point our economy will be completely, utterly ruined.

During World War I, following the Armistice, my squadron was sent to Coblenz and the Army of Occupation. Every pay day we received more marks than the previous pay day, that was because the German inflation was on. By 1923, it reached the point where 30 million marks would not buy a loaf of bread. A story is told of a German father who passed away leaving his fortune to his two sons, 500,000 marks each. One was a frugal lad who never spent a pfennig

of it. The other was a wastrel. He spent it all on champagne parties. Came the day in 1923 when 30 million marks would not buy a loaf of bread. The boy who had saved everything had nothing, but the one who had spent his money on champagne parties was able to exchange the empty bottles for a dinner. In short, the economy had been brought to a state of barter.

Stemming the Tide

Is there any historical evidence that a country on this type of tobaggan has ever been able to reverse herself? I have found only one significant instance in history and that was in England following the Napoleonic Wars. England's debt, in relation to her resources, certainly was greater than ours is now; her taxation was confiscatory; and the restrictions on the exchanges of goods and services were so numerous that had it not been for the smugglers, the law breakers, many of the people would have gone hungry. Something did happen and it is important for us to take note of what it was.

There was a group of people in England headed by such men as John Bright and Richard Cobden, aided and abetted by others like Frederic Bastiat of France, who understood the principles of the free market and were able to explain these principles. They went all around England writing and speaking concerning them. Members of Parliament listened and as a result there began the greatest reform movement in British history made up of the repeal of restrictive law. They repealed the Corn Laws, which would be like repealing subsidies to farmers here. They repealed the Poor Laws, which would be like repealing compulsory social security here. They repealed other restrictions, and fortunately for Western Civilization England at the time had a monarch—Victoria—who appeared to have no passion for ruling Englishmen in an over-riding sense. She relaxed the sovereignty which they believed to be implicit in her office. She gave them freedom in the sense of prisoners on parole. They roamed all over the world and built empire and progress, a development that went on until just before the beginning of World War I when the same old disease set in again.

What precisely is this disease? It has many popular names such as communism, socialism, the welfare state, state interventionism, fascism, nazism, the planned economy, Fabianism, and the like. I often refer to it as the social cancer because it is obvious that there is something in the body politic which has the capacity for inordinate growth.

I believe we can isolate and precisely define this cell. If you will carefully examine every one of the above so-called progressive ideologies, you will note that each one of them has a characteristic common to all the rest, and it is this common characteristic that is the cell in the body politic that has this capacity for growth. It is in the form of a belief, a rapidly growing belief, in the use of organized police force, which is government, as a means of controlling and forcibly directing the creative activities of the citizens within our society. Think of the distinction between this use of force and the use of force limited to the inhibition of destructive actions.

Let me illustrate with government housing, this being as good as TVA or any other of numberless socialistic ventures.

I can remember the time when and if we wanted a house or housing, we relied on private enterprise. First, we relied on the person who wanted a house. Second, we relied on the one who wanted to compete to construct it. Third, we relied on the one who thought he saw some advantage to himself in lending the money for the tools, the labor and the material. Under this system we built more square feet of housing per person than ever existed in any place on earth. Yet, in spite of this remarkable accomplishment, more and more persons are currently believing that the only way we can have adequate housing is to use the agency of force —government—to take the earnings from some and give these earnings, in the form of housing, to others. In short, we have here again the belief in, and the application of, the Marxian ideal—"From each according to his ability, to each according to his need" —by force.

There is not a segment of the whole economy left untouched by this Marxian practice, for it manifests itself in the economic bloodstream, the medium of exchange.

Now, as this belief in the use of force increases, the belief in free men acting privately, competitively, voluntarily, cooperatively, decreases. As the belief in compulsion rises, the belief in freedom falls. Isn't this axiomatic?

Faith in Freedom

The solution to this problem, then, must take a positive form; namely the restoration of a faith in free men. This is much easier to admonish than it is to accomplish.

Let me give you examples of how faith in free men is lost. If I were to ask a group of citizens the question, "Should the government deliver the mails?", most of them would reply, "Certainly!" Why this certainty? The answer seems clear. Our government has had a monoply of this particular productive activity for so many decades—has pre-empted it for so long—that all enterpreneurs have given up any thought as to how it might be conducted as a private enterprise. They don't even speculate on it as a possible opportunity.

Recently, I asked myself several questions. Don't we deliver more pounds of milk every day than mail? Isn't milk more perishable than a love letter or a catalogue? Isn't milk delivered more promptly, more efficiently, more cheaply than mail? Why couldn't private enterprise deliver the mails? We deliver freight; that's heavier. But, no, we have lost faith in ourselves as free men to undertake this simple task.

Who are these men who have lost faith in themselves? Let us see what these same men have accomplished when acting freely in the area of delivery. They have discovered how to deliver the human voice around the world in one twenty-seventh of a second. They have found out how to deliver an event, like a Rose Bowl game, or a presidential inauguration, into everyone's living room, visually, in motion, in color, and at the time it's going on. They deliver 115 persons from Los Angeles to Baltimore in 3 hours and 39 minutes. They deliver gas from a hole in the ground in Texas to my range at Irvington-on-Hudson, New York at a low price and without subsidy. They deliver every four pounds of oil from the Persian Gulf to our eastern seaboard—more than half way around the world—for less money than government will deliver a one-ounce letter across the street in your home town. These, if you please, are the ones who have lost faith in themselves to deliver a letter.

Now, for a hypothetical example. Imagine that the Federal government had, 180 years ago, decreed that all children should receive, for free, shoes and stockings from the time of their birth until adulthood; that this practice had been going on since the very beginning of our political establishment. Next, imagine someone today questioning this practice, insisting that shoes and stockings should be a family, not a government, responsibility. Do you know how most persons would respond to such "heresy?" They would say, "But, you would let the poor children go unshod!" However, in this imagined example, where we haven't invoked the use of government force as yet, we can observe that children, rich and poor alike, are better shod here where the responsibility is on the family than in countries where the responsibility for welfare is entirely governmental. The poor kids are better shod in countries that are more free than in countries that are less free.

Or consider this depressing but not too unlikely possibility: In the year 2,000 A.D., only 40 years hence, the power and light industry may have been nationalized or "municipalized"—in any event, socialized—for more than a decade. Then, let any one of us suggest that power and light ought to be a private enterprise activity. I can assure you that the suggestion would be received with the same degree of popularity as it would if it were made in Moscow today. American men, in these circumstances, would have lost faith in themselves, acting freely, to produce and distribute electrical energy.

Would you like to know what my faith is in free men? It can be stated in one simple sentence. *I actually believe that you—and I don't care who you are—can control your creative actions better than I can control your creative actions.* Reflection will reveal this to be a most radical view, so radical that few persons care to adopt it. This, it seems to me, is the kind of a belief that must be renewed where it has been lost, and discovered where it is unknown, if the belief in force as a means of inducing creative action is to halt and then recede. The building of

this faith is the essence of making the case against big government's destruction of the free market.

Two questions arise from this brief accounting of present trends: What causes this growth in governmental power with its destructive effects on the free market? What can we as individuals do about it?

What We Can Do

First, the causes of a growing socialism are numerous, perhaps some of them unknown. The most important cause, in my opinion, is an almost total disregard of the spiritual antecedent on which the free market rests. Inattention to the Creator as the Source of Rights locates the State as the source of rights—inescapably.

For one thing, the cause is not an absence of individuals who dislike socialism. The dislikers of state interventionism exist by the millions. But little else can be said. Among these millions not one in ten thousand can be found who can do more than damn that ideology. Only now and then there is an individual who thoroughly understands and can clearly explain socialism's opposite: the free market, private property, limited government philosophy and its moral and spiritual foundations. Without such skilled expositors we have no chance at all of reversing present interventionist trends.

With this seemingly incontrovertible fact in mind, what do we do? Putting my conclusion first, there is nothing that can be done short of bringing into existence several thousand creative thinkers, writers, talkers of the freedom philosophy.*

How do we go about this?

Influence, as I see it, is of two kinds, destructive and creative. It is easy enough for one to influence another destructively. No moral or intellectual attainments are required to do that. However, when it comes to influencing another creatively—that is, advancing the understanding of another—one is limited, absolutely, to the power of attraction.

This needs a bit of explanation. For example, when I go to my golf club the members do not line up to seek my counsel on how to putt, how to swing a club, how properly to stand, and so on. Why? They are aware of my incompetency as a golfer! Now, wave a magic wand and turn me into a Sam Snead or a Ben Hogan. Instantly the situation will change, all will drink at my fountain, sit at my feet, as the sayings go.

Summarize it this way: *Power of attraction follows self-improvement as faithfully as does one's shadow!*

The problem is not to reform others. And for two reasons: First, there is some doubt that we should try to cast others in our fallible images. Second, it cannot be done, anyway.

The problem is not to penetrate the mind of another. Instead, it is to have something in one's own mind that others will want to penetrate, that others will draw on.

One reason why this self-improvement approach is grappled onto so reluctantly is the fear that no audience will form once one is improved. The fear is groundless, and evidence to support this view is all about us. Let any individual become really skilled in any subject and others will seek him out.

It isn't that we lack individuals who have the potentiality of becoming creative thinkers, writers, talkers of the freedom philosophy; it is that most of us are not trying.

Just a word about The Foundation for Economic Education. We seek to better understand this philosophy ourselves and to invent ways of explaining it with an ever-increasing clarity. Our findings are published in a monthly journal, *The Freeman*, and in books. These are made available to anyone, anywhere, who wants them, and for the asking. Reading such material is one of the essential exercises to becoming a skilled expositor of freedom.

Finally, where are we to find the individuals who will save America from an all-embracing statism? They will be found among those who love this country. They will be found among those who are reasonably intelligent. They will be found in this room. Specifically, it is the person who is sitting in your chair.

*Over the years I have been collecting ideas on creative thinking and have assembled them in a paper entitled "On What To Do." Single copy on request.

The Challenge of the 60's*

DURING the past few years the Oklahoma Hospital Association has sometimes resembled a political action committee, instead of a hospital association. Many state and national developments have forced it into being a quasi-political organization for mutual defense against the inroads of what many refer to as socialistic development. This should have been no surprise, however, because the blueprint has been plain for all to see in many phases of our national activity, both economically and socially.

Many of our nation's industries have been forced to organize within themselves in an effort to more favorably influence public opinion. The petroleum industry spends many millions of dollars each year through its oil industry information committee for this purpose. I recall the days when the oil industry itself was shocked out of its lethargy into action as a result of what they thought was threatened governmental control and action in their industry. Today they are using the same media to inform the public of what they consider discriminatory gasoline tax.

This example is not unique today with many billions of dollars being spent each year for the purpose of moulding public opinion. It was suggested at the recent American Hospital Association Convention in San Francisco in August by a public relations executive, that the A.H.A. should spend 25 million dollars per year for public relations because of the current lack of understanding which exists in the public mind concerning our nation's hospitals. It seems that this understanding can be bought and sold like any commodity in today's market for X number of dollars. It can be measured (public opinion) to a rather fine degree and can be manipulated like a thermostatic control on an air conditioner. In our society we have shopping center public opinion. It can be purchased by the pound or by the bushel.

*President's Acceptance Address Delivered at Oklahoma Hospital Association Convention, November 3, 1960.



A. M. DONNELL
President
Oklahoma Hospital Association

The American Medical Association is another good example of a professional organization which finds itself in a real predicament concerning public opinion of the medical profession which it represents. One thing is clear and that is the fact that the days are gone when the doctor-patient relationship is inviolate. Gone are the days when a physician or a hospital might claim they are responsible to no one concerning the care of the patient. We must now realize and admit that we do have a responsibility to and accountability for our acts to the public. Unless we assume such responsibility together with all its obligations, we can be sure that a less desirable means of protecting the public trust will be found.

For many years we hospitals have been rather smugly content to rest upon, and hide behind, our tax exempt charitable statuses secure in the feeling our institutions were appreciated and understood. Nothing could have been further from the truth and

today we are busily defending our hospitals to all categories of the public, from governmental officials and politicians to John Q. Citizen.

The biggest single problem that faces us today in the hospital field is that age old problem of understanding. How do we get through to the people we desire to serve or to have support us? If either Richard Nixon or John Kennedy had the secret formula to this problem, the recent political campaign would not have gone into its last feverish hours with both candidates frantically continuing to campaign for last minute support.

How we meet this public relations challenge is up to us. Certainly it is a common problem to our member hospitals and we should continue to accelerate our public relations program through our association.

We should by all means encourage the formation and growth of our women's auxiliaries and other types of volunteer assistance as a vital part of our program. I am convinced in my own mind and experience that this group of volunteers with their appealing approach and properly organized as a vital hospital department, can be of invaluable assistance in forming public opinion, both IN and OUT of the hospital.

Another area of our responsibility and action is that of tailoring the effectiveness of our hospitals toward fitting the needs of patients. It is not enough to claim that hospitalization is the best buy on today's market just because it is rendered at cost to the patient. It is not enough to claim that we are charitable institutions caring for the physical needs of patients as long as we continue to use obsolete and outmoded methods in the hospital's operation. We cannot decry shortages of all types of professional personnel as long as we fail to utilize them properly either in our personnel organization or in planning the design and arrangement of our physical facilities. We cannot continue to apologize for the quality and cost of hospital care indefinitely and expect public approval. We must do something about it. We must manufacture a salable product which the consumer will accept as a good buy for the money. We cannot expect to justify or secure public understanding of our charges if we aren't good enough accountants to isolate the costs and directly relate the charge to the cost. We also cannot justify the practice of false economy in the operation of our institutions. Many of us have kidded ourselves as administrators by setting ourselves up as indispensable to the hospital's operation. We convince ourselves that we can't afford a professional pharmacist or we can't afford a trained purchasing agent with centralized purchasing and storekeeping, when the truth of the matter might be—we can't afford to be without them.

Which really comes first—the chicken or the egg? Do we secure public approval of our performance before we ourselves are proud of our accomplishments; or should we get our houses in order before we can honestly expect such approval? Perhaps it is a combination of the two that would work better. In this way we can enlist assistance from the public to get the job done.

It is my hope that during my term as President of the Oklahoma Hospital Association, it can make a collective contribution to these and other important aspects of the association's activity. Several facts are certain, however, in this regard. We must all stand united in our efforts toward improving the internal operation of our hospitals, and in influencing public opinion. We must develop maturity in our negotiations with third party purchasers of hospital care. We must develop basic policies and principles with which to measure the many proposals submitted to us in order to maintain continuity and consistency in our program. Our officers, board of trustees and committees must be representative of our membership. In order to keep a healthy hospital association we must also guard against political or religious domination within the organization and certainly to discourage intolerance and discrimination.

News

Scholarship Fund, Civil Defense, Government Medical Care, Osteopaths and Resolutions Receive Attention.

Council, Delegates Hold Special Sessions

Council

A proposal for the OSMA to establish eight $500 per year scholarships for first-year students at the University of Oklahoma School of Medicine was presented to the OSMA Council on November 13 by the Council on Professional Education.

In the lengthy discussion which followed, concern was expressed as to whether the awards should be straight scholarships or low-interest loans.

Under the plan as presented, *the two best qualified* applicants to the School of Medicine would receive $500 scholarships, and the *six most needy* applicants for the first year class would receive like amounts. The program would be financed by a three dollar annual increase in OSMA dues and would be administered by the school's Admissions Committee and the immediate Past-President of the OSMA. The Council on Professional Education would present an annual report to the Council and House of Delegates and the continued operation of the fund would be subject to annual approval of the House of Delegates.

The proposal was the result of follow-up action on a similar plan presented to the House of Delegates last Spring. At that time, the Delegates disapproved a scholarship program proposed by the Kay-Noble County Medical Society, but referred the problem to the Council on Professional Education for further study and recommendation, and asked that it be formally re-submitted at the 1961 Annual Meeting.

In another presentation, the Chairman of the Civil Defense Committee, William H. Reiff, M.D., reported on a recent civil defense meeting which he attended in Chicago, and, at the same time, announced general plans for a stepup in association civil defense activities. According to Doctor Reiff, physicians must think in terms of "medical mobilization" rather than defense, for, in the event of a major disaster of any type, the profession will be almost singularly responsible to put the country back on its feet. "If the responsibility for rendering care is ours, then we must assume leadership in adequately planning for such an unhappy event, to the extent that we can react quickly and with the degree of flexibility which will undoubtedly be required," Doctor Reiff said. He stressed the importance of educational courses in handling mass casualties, and observed that the medical profession must be the health mobilization hub, around which the activities of ancillary personnel will revolve.

Trip To Europe

A proposal to permit OSMA sponsorship of a chartered flight to Europe in 1961 was submitted by Doctor Gallaher and approved by the Council, subject to the proviso that the association itself must be relieved from any liability whatsoever. In brief, the action simply permits a group of OSMA members to use the association's name to charter an airplane, as required by Federal regulations. Only OSMA members and their immediate families will be authorized to participate. Preliminary planning indicates that fares will be about one-half as much as commercial rates.

Also presented to the Council were several other items, subsequently reported to the House of Delegates, as mentioned in the paragraphs below.

House of Delegates

Following the Council meeting, the House of Delegates convened.

C. M. Bielstein, M.D., Chairman of the Professional Advisory Committee to the Department of Public Welfare, led off with a detailed presentation regarding the recent expansion of the welfare medical care program, and the implementation of a new program to provide health care for non-assistance recipients who are over 65 and "near-needy." (See page 856.)

Following Doctor Bielstein's report, President Walter E. Brown, M.D., was called upon to report regarding a previous House of Delegates action (July 31, 1960) which pertained to a threatened 10% cutback in payments under the welfare medical care program.

Doctor Brown reminded the delegates that a quorum had been lost at the last meeting, prior to the passage of the following resolution (H. E. Denyer, M.D., Bartlesville):

"The Oklahoma State Medical Association regrets that the administration of the Department of Public Welfare finds itself in financial difficulty, and states that it will continue to care for the State's poor, and it is sure that administrative changes will be effected to adequately assist the physicians and hospitals in carrying the cost of care of the aged sick.

"Further, that a study committee be furnished the Department of Public Welfare in order to develop ways and means for this to be accomplished."

Due to lack of a quorum, Doctor Brown explained, he was requested to submit this resolution to *all* Delegates for a mail ballot. However, upon failing to find constitutional authorization for a mail ballot, he simply mailed the resolution to the delegates for information purposes.

"Now that a quorum is present," Doctor Brown said, "and despite the fact that P.L. 86-778 made the 10% cutback unnecessary, I move the official adoption of this resolution." The motion carried.

Next, the Council on Public Policy reported on a meeting held earlier in the Fall with representatives of the Oklahoma Osteopathic Association.

Council Chairman J. R. Stacy, M.D., told the Delegates that the osteopaths had made two requests: (1) That professional consultation between M.D.'s and osteopaths be ethically permitted; and, (2) That osteopaths be authorized to enroll in postgraduate courses at the University of Oklahoma School of Medicine.

He presented a detailed analysis of both issues, then moved the adoption of his Council's recommendations that the OSMA continue to adhere to its Principles of Medical Ethics and go on record as disapproving postgraduate education (through the medical school) for persons other than graduate Doctors of Medicine. The Council on Public Policy's recommendations were sustained by the Delegates.

A Plea For Informed Action

Speaker of the House Marshall O. Hart, M.D., presented a plan for the solicitation, coordination and more business-like handling of resolutions to both OSMA and AMA.

According to Doctor Hart, the physicians of Oklahoma have given too little thought to the preparation and handling of resolutions which are intended to create association policy. He moved that the OSMA President appoint a committee of one from each county or district society, who will, in turn, keep himself and his local society well-informed regarding problems and activities of the state and national associations as well as with national affairs in general. He urged more active interest and response to the affairs of our nation. " . . . the first and most important role any of us play in life is citizenship," Doctor Hart said. "We are living in a time of rapid change and a hurried plunge toward a socialistic or welfare state of existence. If we are to exist as a free nation, a more active role must be played by organized medicine in political and public life. That role will be far more effective if it presents an informed front."

He further observed that the resolutions introduced and considered at the state meeting are of far more consequence than is commonly realized, because they transmit to the public and lawmakers the general philosophy of medicine toward vital problems in professional and community life.

Regarding the mechanics of improving the resolution system, Doctor Hart recommended that the president of each county society, each councilor, all delegates and alternates should consider what they think is a problem of sufficient size to justify a resolution. Copies of all resolutions should be at the OSMA Executive Office far enough in advance of the annual meeting to permit duplication and distribution to all delegates and alternates in advance of the meeting.

Other Actions

In other actions, the House of Delegates:

● Heard reports on the 1960 Annual Meeting of the American Medical Association, from Wilkie D. Hoover, M.D., Delegate, and R. Q. Goodwin, M.D., Alternate Delegate.

● Learned that the American Medical Association was unable to supply advance information on the policy matters to come up at its Clinical Session in Washington, D.C., November 28-December 1.

● Received, approved and fowarded to the AMA a resolution from the Washington-Nowata District Society which called for (1) the continued condemnation of a Social Security approach to financing health care for the aged, and (2) the encouragement of other states to follow Oklahoma's example in implementing the provisions of P.L. 86-778, the legislative measure which permits states to establish (with Federal financial assistance) and control medical care programs for persons over 65, both indigent and medically indigent. (Later approved by AMA, see next column.)

OB-GYN Exams in January

The American Board of Obstetrics and Gynecology will hold Part 1, written examinations, in various cities of the United States, Canada and military centers outside the continental United States on Friday, January 13, 1961.

Details are available from Robert L. Faulkner, M.D., American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

AMA Passes Oklahoma Resolution

Resolution No. 7 at the Clinical Meeting of the AMA, Washington, D.C., November 28-December 1, was authored by the Washington-Nowata District Society and approved by the OSMA Delegates on November 13, 1960.

After being modified in the reference committee, the resolution unanimously passed the House, receiving the applause of the Delegates.

Resolution No. 7

"*Whereas*, The physicians of the United States are concerned with safeguarding and improving the health of the American people; and

"*Whereas*, Compulsory national health insurance for the aged would lead to poorer, not better, health care; and

"*Whereas*, Legislation to bring about compulsory national health insurance even for a limited segment of our population, would be the beginning of the process which would ultimately place every American under a rigid, compulsory system of government controlled medicine; and

"*Whereas*, The medical profession which has helped make this one of the healthiest nations in the world's history, can maintain this high standard of care only under a system which allows it freedom to practice; and

"*Whereas*, Medicine controlled by the Federal Government under a compulsory system would result in inferior medical care, red tape and high costs; and

"*Whereas*, The Kerr-Mills bill (Title VI of Public Law 86-778), which is in accord with the policy of the A.M.A., can effectively meet the needs of those of our older citizens who really need help; therefore be it

"*Resolved*, that the House of Delegates reaffirm the Association's support of the Kerr-Mills bill and its opposition to any legislation involving the use of the OASDI mechanism for medical aid to the aged; and be it further

"*Resolved*, that all state and local medical associations cooperate with the appropriate state officials and provide leadership in implementing the provisions of the Kerr-Mills bill."

MEDICAL ASSISTANCE FOR THE AGED PROGRAM

Welfare Department Announces Plan for "Near-Needy"

As previously reported in the Journal (October, November issues), Congressional enactment of Public Law 86-778 made additional Federal matching funds available to bolster state welfare medical care programs. The two-pronged legislation increased the Federal matching share for welfare recipients, and also provided matching funds for state-operated medical care programs for those over 65 who are medically indigent, but not pensioners.

The Oklahoma State Department of Public Welfare launched an expanded program for welfare recipients on October 1st (reported in the October Journal). On October 18th, Oklahoma became the fourth state in the nation to take advantage of the second feature of P.L. 86-778, when the welfare department announced general plans for its Medical Assistance For the Aged Program (MAA).

MAA is budgeted for $6,105,000 the first year, $2,200,000 of which will come from state sales tax, the rest from Uncle Sam. Coupled with the welfare medical assistance program, the state's annual outlay for health care will now be approximately $26 million, as compared to $11 million spent last year.

Utilization of MAA is an unknown entity at present, but the welfare department estimates that about 15,000 persons will seek help the first year.

A summary of the salient features of MAA appears in the following paragraphs.

Basic Concepts

The Department considers that a medical care program for Medical Assistance for the Aged (MAA) should fulfill the following objectives: (1) Supplement the recipient's (patient's) resources to provide for the best possible medical and surgical care for eligible recipients (patients) within the limits of available funds; (2) Provide for the free choice of licensed medical or osteopathic physicians; (3) Provide payment on an equitable basis to vendors of medical care and services within the limits of available funds; (4) Conserve resources by omitting services now available to aged individuals through other sources, except in cases where by virtue of the heavy welfare case load it can be shown that assistance through this program will materially benefit the quality and availability of care to individuals eligible for Medical Assistance for the Aged; (5) Provide insofar as practicable the services of the Department's staff in helping the recipient (patient) in carrying out recommendations of his attending physician relating to his transfer from the hospital to another form of medical care or service that is within the scope of the Department's Medical Assistance for the Aged Program; and (6) Be sufficiently flexible to meet the changing needs in Medical Assistance for the Aged.

Eligibility Requirements

Age

An individual must be sixty-five years of age or over as determined by the patient's sworn affidavit.

Residence

An individual must be a resident of Oklahoma at the time he receives the medical care or services, for which he is requesting payment from the "Medical Assistance for the Aged Fund." Residence will be determined by the individual's sworn affidavit that he is a resident of Oklahoma.

Institutional Residence

An individual must not be an inmate of a public institution, except as a patient in a medical institution, and not an individual (a) who is a patient in an institution for tuberculosis or mental diseases, or (b) who has been diagnosed as having tuberculosis or psychosis and is a patient in a medical institution as a result thereof.

Recipient of Public Assistance

The individual *must not* be a recipient of public assistance. This will be determined by the individual's sworn affidavit and by a verification of the Department's Master File upon request for payment in the individual's behalf from the Medical Assistance for the Aged Fund.

Income

For a single person, income is exempt up to $924 annually, if he owns his home and is occupying it as such, and $1,188 if he rents (or is making payments on the home). For a man and wife, the exempt annual income is $1,560, if they own their home and occupy it as such, and $1,824 if they rent (or make payments on the home). Those persons whose annual income is in excess of these amounts are not eligible for payment for medical care or services from Medical Assistance for the Aged Fund. (Income is defined as wages, business profits, rental income, OASI, pensions, annuities, etc.)

Capital Resources

Home. The patient's equity in his home will be exempt up to $8,000. Any equity above this amount will be considered as a part of "Other Resources." If the patient and/or his spouse are not living in the home and have no feasible plans for returning to the home, the home is no longer considered an exemption.

Life Insurance. The cash, loan or surrender value of a patient's life insurance is exempt on the first $1,000 of face value of life insurance for a single person and the first $2,000 face value of insurance for a man and wife. The cash, loan or surrender value of life insurance policies held by patient and/or recipient's spouse will be considered on that part of the face value of a policy or policies in excess of the above enumerated exemptions. This excess will be considered as part of the "Other Resources." In the event, a patient and/or spouse have a combination of policies in excess of the above listed exemptions, the face value of the exemptions will be on the policy or policies which has the lesser cash value.

In the case of a single individual, the first $1,000 face value of life insurance of any policy or combination of policies will be exempt. In the case of a man and wife living together, the first $1,000 face value of their respective insurance policies will be exempt or in the event one spouse does not have insurance, the first $2,000 face value of the life insurance of the other spouse may be exempt.

Tools of Trade. A patient's equity in his tools with which he earns a living will be exempt up to $1,500. Any equity in tools of trade above this amount will be considered as a part of "Other Resources."

Small Business. A patient's equity in a small business which he operates is exempt up to $2,500. This includes the building, the ground on which it is located, equipment and invoice of stock. Any equity in the business above $2,500 will be considered a part of "Other Resources."

Other Resources

The maximum exemption of "Other Resources" is $700 for a single person and $1,000 for a man and wife. Other resources can be in the form of cash, stocks, bonds, notes, mortgages, cash value of life insurance (above exemptions), automobiles, or property of any kind, real or personal, which can be made available for the patient's and/or spouse's use. Also included in other resources are the amounts above the patient's and/or spouse's exemption in any one of the resources listed above.

In-Patient Medical Care and Services

General Hospital Care

For patients of Medical Assistance for the Aged, the compensable period for all inclusive hospital care is limited to a maximum of *twenty-one days for a single admission.*

The patient must have been hospitalized for the treatment of a life-endangering or sight-endangering condition as determined by the attending medical or osteopathic physician. Recognized evidence of this determination is the attending medical or osteopathic physician's signed statement that hospitalization for the patient was requested by him and in his judgment was for the treatment of a life-endangering or sight-endangering condition (Recommended Form MAA-1).

Procedure

When the individual enters a licensed general hospital and requests payment on his behalf from the Medical Assistance for the Aged Fund, he should execute a sworn affidavit which is to notify the Department of Public Welfare that he is in need of medical care and that he meets the eligibility requirements of age, residence, and institutional residence. If either the hospital or physician plans to bill the Department in behalf of the

patient for care or services rendered, the physician should complete Form MAA-1, Physician's Statement, certifying that the individual was hospitalized for a life-endangering or sight-endangering illness.

An exception to the above general rule may be made if payment for medical care or services on behalf of the aged individual is made by other than the individual who was unable to execute an affidavit at the time of his admission to the hospital. The date of the oral request to the physician or the admitting officer of the hospital will be considered as the effective date of request for payment in behalf of the patient providing the Physician's Statement, MAA-1 is dated the same date that the oral request was made. This is contingent upon the hospital, the individual, his guardian, or person acting in his behalf following through with the execution of the required affidavit, MAA-2, and the completion of the Resource Sheet, MAA-3, which are filed with the State Department of Public Welfare, Capitol Office Building, Oklahoma City where eligibility will be determined by the medical and social work staff of the Medical Vendor Control Unit. These forms should be submitted according to agency instructions, and must be transmitted to the department on or before date of discharge or death.

The hospital staff is expected to assist the individual in completing the Resource Sheet, Form MAA-3, which is the patient's statement of his resources. The applying individual is responsible for listing all of his assets and liabilities. The hospital will use Form Adm-26, to bill the Department for services rendered and compensable through the Medical Assistance for the Aged program.

Re-admission to a licensed general hospital under the Medical Assistance for the Aged Program within ten days of date of discharge from any previous admission under the Medical Assistance for the Aged Program will be compensable only if such care is needed for a new acute life-endangering illness or for an acute exacerbation of a previous illness. *Any request for payment in behalf of a patient re-admitted within ten days of the last date of previous discharge shall be accompanied by a medical report of the patient's attending physician certifying to the physical condition of the patient, his medical needs, and the attending physician's reason for re-admission.* The request for payment in the patient's behalf will be reviewed in the State Office and if such request is compensable in the opinion of the Department's Medical Staff, and if funds are available for payment, notification of compensability will be issued by the Department's State Office to the general hospital and the patient's attending physician. If, in the opinion of the Department's Medical Staff, payment cannot be made under the Department's regulations, the vendor will be notified within seventy-two hours from the date of receipt of such request that the request for payment in behalf of the patient is being referred to the Department's Medical Advisory Committee for consideration and recommendation at its next regular meeting.

Consideration cannot be given to any request for payment in behalf of a patient re-admitted within ten days of the date of previous discharge unless vendors certify to the State Department of Public Welfare that the patient has been discharged and physically removed from the hospital following the previous date of compensable hospitalization.

Licensed Medical and Osteopathic Physicians

Payment to licensed medical and osteopathic physicians in behalf of the patient will be at the *rate of $5.00 a day for not more than fifteen days* of any twenty-one day compensable admission, in a licensed general hospital, when the patient was admitted for medical care within the scope of the program. Payment for surgeons, anesthetists, pathologists and radiologists (for therapeutic radiology for malignant diseases) will be at *seventy-five per cent of the Commission's recognized rate as set forth in the Physician's Manual and Appendix M-1.* Assistant surgeons will be paid at the rate of ten per cent of the recognized surgical fee.

The physicians will use Form Adm-27 to bill the Department for services rendered and compensable under the Medical Assistance for the Aged Program.

If the patient is re-admitted to a licensed general hospital any time within ten days

of date of discharge from any previous admission, the licensed medical or osteopathic physician may be compensated at the rate of $5.00 per day not to exceed fifteen days, only if such care is needed for a new acute life-endangering or sight-endangering illness or an acute life-endangering or sight-endangering exacerbation of a previous illness.

Out-Patient Care and Services

Therapeutic Radiology

Payment will be made to licensed medical and osteopathic physicians for out-patient therapeutic radiology for malignant diseases, *when such therapy has been prescribed while the patient has been hospitalized.* Payment for therapeutic radiology will be at the rate of *seventy-five per cent of the Commission's recognized rate* as set forth in the Physician's Manual and Appendix M-1. Form Adm-27 will be used to bill for such treatment.

Diagnostic Services

For the purpose of determining need of nursing care and physician's services in an individual's own home, *$5.00 will be paid the attending medical or osteopathic physician for a diagnostic examination and physician's report* on Form ABCDM-80. Form Adm-27 will be used to bill for such examination.

Home Visits

Payment will be made to licensed medical and osteopathic physicians for professional services rendered to persons who have been approved for nursing care in their own homes. Payment will be at the *rate of $5.00 per home visit with a maximum of two home visits a month* during the period approved for nursing care in the patient's own home. The physician will use Form Adm-27 for billing the Department for such services.

Home Nursing Care

Payment for nursing service in the eligible individual's own home may be made in behalf of such person, only to persons who perform such service to the public for hire and if the service is primarily concerned with the care and attendance of the patient. Nursing service will consist of personal care and hygiene, preparation and giving of food, giving medication and other treatment *prescribed and supervised by a licensed medical or osteopathic physician*, and such other special needs as are ordered by the physician. Such service is provided only for bedfast or chairfast patients and when continuing service is required which could not be made available in the immediate family.

Requests for nursing services to be performed in the aged individual's own home will be made to the County Department of Public Welfare in the county of the person's residence. The County Department of Public Welfare will assist the individual or person making application in his behalf in completing Forms MAA-2 and MAA-3, and will complete Form ABCDM-82. If, in the opinion of the County Director, the person appears to be financially eligible for payment in his behalf from the Medical Assistance for the Aged Fund, the county will authorize, on Form BCD-16, the individual's attending medical or osteopathic physician to do a diagnostic examination and physician's report on Form ABCDM-80. Upon receipt of the Form ABCDM-80, in the County Office, this form, together with Forms MAA-2, MAA-3 and ABCDM-82, will be transmitted to the State Office, Medical Vendor Control Unit, where eligibility for nursing care will be determined by the social work staff. The Medical Review Team, composed of a physician and medical social worker, will be responsible for making the determination on need for nursing care. After making a decision on the request for nursing care, the Medical Review Team will notify the County Department, the individual and his attending physician, on Form MAA-4, as to whether or not payment for nursing care can be provided from the Medical Assistance for the Aged Fund. Payment for nursing care in the individual's own home may not be authorized for more than one hundred-eighty days in any twelve month period.

Payment to the person rendering nursing service in the patient's own home is $2.00 per day for one patient and $1.00 per day for each additional patient when there are others in the household who are receiving nursing services through the Department's Medical Care Program. Registered Nurses and Licensed Practical Nurses may bill the Department for nursing services rendered to no more than four patients per day. Those persons giving nursing care, who are neither



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Extremely low toxicity[4] . . . only 2.7 per cent incidence in recommended dosage — Typical of KYNEX relative safety, toxicity studies[5] in 223 patients showed TOTAL side effects (both subjective and objective) in only six cases, all temporary and rapidly reversed. Another evaluation[4] in 110 patients confirmed the near-absence of reactions when given at the recommended dosage. High solubility of both free and conjugated product[6] obviates renal complications. No crystalluria has been reported.

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1. Boger, W. P.; Strickland, C. S., and Gylfe, J. M.: Antibiotic Med. & Clin. Ther. 3:378, (Nov.) 1956. 2. Boger, W. P.: Antibiotics Annual 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 48. 3. Sheth, U. K.; Kulkarni, B. S., and Kamath, P. G.: Antibiotic Med. & Clin. Ther. 5:604 (Oct.) 1958. 4. Vinnicombe, J.: Ibid. 5:474 (July) 1958. 5. Anderson, P. C., and Wissinger, H. A.: U. S. Armed Forces M. J. 10:1051 (Sept.) 1959. 6. Roepke, R. R.; Maren, T. H., and Mayer, E.: Ann. New York Acad. Sc. 60:457 (Oct.) 1957.

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registered nor licensed practical nurses, may bill the Department for nursing services rendered to no more than two households and not to exceed four persons daily.

Miscellaneous Provisions

Transportation

Ambulance companies may be paid for the transportation of a patient between his own home or scene of an accident to a general hospital when such transportation is necessary for the admission of a patient or when necessary to remove a patient from a general hospital, providing his period of hospitalization was compensable through the Department's Medical Assistance for the Aged Program. The recognized rate for such transportation is forty cents per mile, one way, however, based on the availability of funds, payment will be made at the rate of twenty-five cents one way with a pick-up fee of $2.00 when the distance is less than thirty-five miles. In no instance will payment be made to a vendor for transportation of a patient within the city limits of the patient's residence.

Blood Banks

Payment will be made to a blood bank for blood given in a general hospital when the blood bank is entirely separate from the hospital and when the cost of procuring and processing the blood is not included in the computed per diem rate of the hospital. Payment will be at the rate of $15.00 per pint and will be made only after blood has not been replaced for the patient within ninety days of date of administering of such blood.

Dentists

Payment will be made to dentists or oral surgeons for services performed in a licensed general hospital when a patient is admitted for life-endangering conditions involving fractures, infections or tumors of the mouth. The dentist will bill the Department on Adm-27, not later than sixty days after the service chargeable to the Medical Assistance for the Aged Fund has been rendered.

Medical Care Outside the State

Payment may be made for Oklahomans who are outside the State on visits. Forms and instructions should be requested from the D.P.W. by mail.

Plans Formulated For OSMA Annual Meeting

Many interesting innovations are planned for the 55th Annual Meeting of the Oklahoma State Medical Association to be held in Tulsa, May 7-9, 1961.

The three-day convention will open on a Sunday and conclude on Tuesday, instead of the usual Monday through Wednesday dates. The change will permit most doctors to spend most of Wednesday in their office, thus saving a day of valuable professional time.

Scientific sessions will open at 10:00 a.m. on Sunday, May 7, and conclude at 5:00 p.m. on Tuesday, May 9.

A change in the social program of the Annual Meeting will see the President's Inaugural Dinner Dance split into two separate events. On Monday evening, May 8, doctors and wives will attend a President's Inaugural Dinner at Southern Hills Country Club. Following a social hour and dinner, there will be inaugural ceremonies and an unusual program of entertainment. There will be incidental dinner music.

On Tuesday evening, May 9, a delightful dancing party will be held in the Crystal Ballroom of The Mayo with music by a nationally known dance and recording band. Intermission entertainment will include a floor show with prominent entertainers.

The change will provide convention visitors with two evenings of outstanding entertainment.

Specialty groups will meet on Sunday, May 7, with many of the sessions and social events open to all doctors in attendance.

The annual golf tournament will also follow a new format. Doctors may golf at their convenience on either Monday or Tuesday, May 8-9. Prizes will be awarded at the Tuesday evening dance. The tournament will be at the beautiful Oaks Country Club of Tulsa.

The scientific program will feature presentations by twelve visiting distinguished guest speakers, medical motion pictures, symposia and roundtable luncheons. A symposium on the economics of medicine will include Doctor F. J. L. Blasingame, Executive Vice-President of the American Medical Association, Chicago, Illinois, as a participant.

Commercial and scientific exhibits will be on display in The Mayo, site of the 1961 Annual Meeting. The Doctors Hobby Show, a popular feature sponsored by the Auxiliary to the Oklahoma State Medical Association, will be repeated.

The annual meeting of the House of Delegates is scheduled for 10:00 a.m. on Sunday, May 7, 1961, in the Pompeian Court of The Mayo. The Council will meet on Saturday, May 6, at a time to be announced later.

Doctor C. S. Lewis, Jr., Tulsa internist, is serving as General Chairman of the 55th Annual Meeting, with Doctor Donald L. Brawner as Program Chairman. Other committee members include Doctor Robert Jabour, Doctor E. Malcolm Stokes, Doctor Byron L. Bailey and Doctor James W. Kelley. Arrangements are being handled by the Tulsa County Medical Society.

Speakers Named for Oklahoma Chapter of AAGP

Oklahoma City's Biltmore Hotel will be the site of the Thirteenth Annual Meeting of the Oklahoma Chapter of the American Academy of General Practice on February 6-7, 1961.

According to Howard P. Mauldin, M.D., Oklahoma City co-ordinator for the scientific program, seven guest lecturers have been secured for the two-day meeting.

Covering a wide field of scientific interest will be: Calvin J. Dillaha, M.D., Little Rock, Arkansas, Dermatology; Elmer Belt, M.D., Los Angeles, California, Urology; T. A. Watters, M.D., New Orleans, Louisiana, Psychiatry; John DeVore, M.D., Oklahoma City, Geriatrics; W. D. Paul, M.D., Iowa City, Iowa, Orthopedics; Joseph T. Ichter, M.D., Doylestown, Pennsylvania, Pediatrics; and, John T. Reynolds, M.D., Chicago, Illinois, Surgery.

Special entertainment is being planned for the ladies and will be outlined in the January issue of *The Journal* when a complete program of the meeting will be listed.

M.D.'s Urged to Submit Papers for Annual Meeting

Oklahoma doctors are invited to submit scientific papers for scheduling on the program of the 55th Annual Meeting of the Oklahoma State Medical Association in Tulsa, May 7-9, 1961, it was announced last month by Doctor Donald L. Brawner, Program Chairman.

Members of the Association should submit a brief summary of the proposed paper and the exact title. This information should be mailed to: Donald L. Brawner, M.D., Program Chairman, Oklahoma State Medical Association, Convention Headquarters, B9 Medical Arts Building, Tulsa.

In accordance with the By-Laws of the Association, papers by members are limited to 20 minutes in length.

The Program Committee will accept those which offer a maximum value to the practicing physician, Doctor Brawner said. He noted that time limitations might necessitate the rejection of some of the papers submitted. Doctors will be advised of the disposition of their application.

Oklahoma doctors are also requested to prepare scientific exhibits for display at the three-day convention. Case studies (particularly those of a bizarre nature), scientific discussions, displays of films, x-rays, drawings and clinical material are desired. There is no charge for the space, but exhibitors will be expected to prepare and install exhibits at their own expense.

Interested physicians, as well as interested medical organizations, may request an application for scientific exhibit space by writing: Doctor Byron L. Bailey, Exhibits Chairman, Oklahoma State Medical Association, B9 Medical Arts Building, Tulsa. Complete details will be forwarded promptly.

Annual Meeting Resolutions

County medical societies are urged to discuss possible resolutions for the state meeting at their January, February and March meetings. Approved resolutions must reach the OSMA executive offices no later than April 1, 1961.



Shown standing (left to right) J. D. McCarty, Speaker of the Oklahoma House of Representatives; Major General Lewis L. Mundell, TAFB, Oklahoma City; Lt. Governor George Nigh, McAlester; John H. Seeton, Secretary Manager of the Pennsylvania Manufacturer's Association, Philadelphia; Roy Tillman, President of the Oklahoma State AFL-CIO; Charles Richmond, Chaplain, 45th Infantry Division, Oklahoma City; Joe B. Hunt, State Insurance Commissioner; and, Walter E. Brown, M.D., President of the Oklahoma State Medical Association. Seated (left to right) Charles F. Feike, President of the National Rehabilitation Association, Salem, Oregon; Theodore D. Wheaton, President of the Oklahoma Rehabilitation Association; William P. McCahill, Executive Secretary of the President's Committee on Employment of the Physically Handicapped, Washington, D.C.; E. J. "Chuck" O'Conner, Executive Vice-President of the Associated Industries of Oklahoma; and, Enar B. Olson, Superintendent of the Federal Aviation Agency School, Oklahoma City.

Oklahoma Hosts National Rehab Conference

More than 1600 attended the National Rehabilitation Conference in Oklahoma City, October 10-12, 1960. The world's largest rehabilitation meeting brought together both professional people and laymen who are interested in the health, education and welfare of less fortunate citizens.

Senator A. S. (Mike) Monroney and Daniel Blain, M.D., Director of Mental Hygiene, California Department of Mental Health, were keynote speakers at the opening session.

Employers Luncheon

One of the highlights of the first day was the Employers Luncheon, sponsored by Associated Industries of Oklahoma. More than 450 were on hand to hear John H. Seeton of the Pennsylvania Manufacturer's Association discuss "Industry Favors Employment of the Handicapped."

Representing the Oklahoma State Medical Association at the luncheon were, Walter E. Brown, M.D., President, Dick Graham, Executive Secretary, and Don Blair, Associate Executive Secretary.

Program Highlights

The afternoon session of the first day was devoted to panel discussions. A group of national employers discussed "Getting Over the Hurdles At the Hiring Level." Among the participants was Kieffer Davis, M.D., Medical Director of the Phillips Petroleum Company, who spoke on "Realistic Appraisals of the Medical Aspects."

Another interesting session took place on Wednesday when panel discussions were held on the following subjects: "Pre-Vocational Evaluation: An Assessment of Current Techniques;" "Communications in Rehabilitation;" "Executive Leadership and Its Responsibility;" and "Habilitation of the Mentally Retarded, Past, Present, and Future."

OSMA Exhibit

Among the exhibits was one sponsored by the state medical association, entitled "The Physician's Role in Rehabilitation."

GP of Year Honored By School Boards

Chesley M. Martin, M.D., the American Medical Association's 1960 General Practitioner of the Year from Elgin, Oklahoma, was honored on November 17 when the Oklahoma School Boards Association presented a plaque to him commemorating his 42 years of service as Chairman of Elgin's school board.

In presenting the award, J. G. Stratton, Clinton, past-president of the National School Boards Association, observed that although there are many people over the country who had served their school boards nearly a half century, he knew of no one with a longer record as chairman than Doctor Martin.

Doctor Martin's interest in education was an important factor in his receipt of the AMA award at the 1960 Clinical Session of the AMA held last December in Dallas.

In addition to routine school board duties, he also serves as school physician and as the inspirational leader of the local FFA group, one of the state's strongest chapters. He was responsible for the construction of an FFA barn on school property, and in 1949, he designed and supervised the con-



J. G. Stratton, Clinton, left, is shown presenting School Board plaque to Doctor Martin.



Doctor Lain Receives Southern Medical Award

Everett S. Lain, M.D., pioneer Oklahoma dermatologist and President of the Oklahoma State Medical Association in 1924-25, won the distinguished service award of the Southern Medical Association at the group's annual meeting in St. Louis early in November.

Doctor Lain served as Chairman of the committee which organized the Dermatological Section of the association in 1922 and later served as chairman and secretary of the section.

Winning awards is by no means a new field for Doctor Lain, who retired from active practice in 1954. In 1958, he received the professor emeritus of the year award from the University of Oklahoma School of Medicine Alumni Association. In 1933, the American Medical Association presented him with a certificate of honor for research in disorders of the mouth.

Doctor Lain was a lecturer in dermatology at Epworth Medical College in 1908 and a member of the faculty of the OU school on its foundation in 1910. He has served as head of the department of dermatology and radiology at the school and in addition was instrumental in bringing radium treatment to the state.

A member of the national board of the American Cancer Society from 1921 to 1936, Doctor Lain helped to organize the Oklahoma division of the society.

Three Hundred Attend Student Banquet

The OSMA's Annual Fall Banquet for the Student American Medical Association, held November 18th in Oklahoma City, was attended by a group of three hundred, representing members of the SAMA chapter, their wives, officers and councilors of the OSMA, preceptors and school officials.

According to Walter E. Brown, M.D., President of the OSMA, the dinner not only represents the highlight of the students' organizational year, but also presents organized medicine with an excellent opportunity to establish rapport with its future colleagues, thus indirectly enhancing the ability of medicine to meet future socio-economic responsibilities and problems.

In his welcoming statement, Doctor Brown admitted to the secondary motivation behind the association's sponsorship of the dinner. "We confess to a selfish motive in sponsoring this event," he said, "for through the liaison begun here tonight the physicians of Oklahoma hope to assure the continued advancement of medical science in a free society. We also hope you will stay in Oklahoma and become active members of the Oklahoma State Medical Association."

Doctor Brown also made a presentation to Dean Mark Everett, who was on hand to represent the school. The Dean was given a new pipe, ostensibly from the "Pipes For Mark Everett Club."

Nonsequitures

Principal speaker of the evening was William B. Bean, M.D., whose talk was entitled, "A Bundle of Nonsequitures." Doctor Bean is Professor of Medicine and Head of the Department of Medicine at the State University of Iowa. In addition to this extremely amusing and educational talk on the malfortunes of misunderstanding, Doctor Bean had previously delivered the 1960 AOA Lecture at the medical school.

President of the Oklahoma Chapter of the Student AMA is Rex Baggett, third year student. Ron White and Sam Hamra are Vice-President and Secretary-Treasurer, respectively.

Coming Meetings

1960

DECEMBER

UNIVERSITY OF OKLAHOMA MEDICAL CENTER POSTGRADUATE SHORT COURSE, Anesthesia in General Practice. Dec. 14. Medical school auditorium. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

UNIVERSITY OF OKLAHOMA POSTGRADUATE COURSE, Consultations on Problems in Practice. Dec. 15, 16, 17. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

AMERICAN ACADEMY OF DERMATOLOGY AND SYPHILOLOGY, Palmer House, Chicago, Dec. 3-8. Robert R. Kierland, M.D., First National Bank Bldg., Rochester, Minn., Secretary-Treasurer.

1961

JANUARY

AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS, Hotel Americana, Bal Harbour, Miami Beach, Fla., Jan. 8-13. Mr. John K. Hart, 116 S. Michigan Ave., Chicago, 3, Executive Secretary.

AMERICAN CANCER SOCIETY, ARIZONA DIVISION, 9th Annual Cancer Seminar, Jan. 12, 13, 14. Tidelands Motor Inn, Tucson, Arizona. Write American Cancer Society, 37 East Jackson St., Tucson, Arizona.

AMERICAN COLLEGE OF PHYSICIANS, Recent Advances in Drug Therapy, Jan. 9-13. University of Washington School of Medicine, Seattle, Washington. Write The American College of Physicians, 4200 Pine St., Philadelphia 4, Pa.

AMERICAN COLLEGE OF PHYSICIANS, Mechanisms of Disease, Jan. 16-20, Columbia University College of Physicians and Surgeons, New York City. Write The American College of Physicians, 4200 Pine St., Philadelphia 4, Pa.

AMERICAN COLLEGE OF SURGEONS, SECTIONAL MEETING, Hotel Dinkler-Tutwiler, Birmingham, Ala., Jan. 16-18. William E. Adams, M.D., Am. Coll. of Surgeons, 40 E. Erie St., Chicago 11, Secretary.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER POSTGRADUATE SHORT COURSE, Pediatric Radiology, Jan. 11, Medical school auditorium. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

FEBRUARY

AMERICAN ACADEMY OF ALLERGY, Statler-Hilton Hotel, Washington, D.C., Feb. 6-8. Mr. James O. Kelley, 756 N. Milwaukee St., Milwaukee 2, Wis., Executive Secretary.

AMERICAN COLLEGE OF PHYSICIANS, Selected Topics in Internal Medicine, Feb. 20-24, University of Oklahoma School of Medicine, Okla. City. Write to The American College of Physicians, 4200 Pine St., Philadelphia 4, Pa.

(Continued on Page xxxiv)

Book Reviews

French's Index of Differential Diagnosis, Edited by Arthur Douthwaite, M.D., F.R.C.P., Eighth Edition. The Williams and Wilkins Co., Baltimore, 1960, pp. 1111, price $24.00.

This time honored text book of "Index of Differential Diagnosis" was first offered to physicians in March 1912 and in the interim has gone through eight separate editions. This present eighth edition is again printed in Great Britain and is edited by Arthur H. Douthwaite, M.D., F.R.C.P., senior physician at Guy's Hospital. Doctor French died in 1951.

The book binding seems to leave a little to be desired in the matter of ruggedness. The binder and cover are attractively done but with the long rough life expected for a book of this sort, it would appear that a little more reinforcement could have been added.

Physicians familiar with the old French editions will again note the absence of a Table of Contents, made up for by an elaborate index at the back of the book which extends some 140 pages, with small, closely spaced type. The indexing system is unique and allows ready reference to most any subject desired in the text.

As Doctor French stated in the preface to the first edition in 1912, "The guiding principle throughout has been to suppose that a particular symptom attracts special notice in a given case and the diagnosis has to be established by differentiating between the various diseases to which this symptom may be due."

It is readily apparent that the new edition of French has been enhanced by liberal use of color photography. Throughout the book color photographs of various clinical entities are used with good effect, although the English color reproduction techniques do seem to leave a little to be desired when compared with the striking color illustrations seen in modern day American text books. It also seems regrettable that in a work of this sort the reproductions of x-rays cannot be presented as direct copies instead of the reverse negatives which are exhibited.

The book is fascinating for casual perusal. It is intended only as a quick reference book in clinical diagnosis and makes no pretense at the detailed scholarly and investigative approach. There is not even a bibliography listed for stimulating further reading. However, the physical findings and clinical signs of significance to a physician are recorded in abundant detail for every clinical entity recognized in Great Britain today. To any physician familiar with this revered work of Doctor French, this new edition is highly recommended. To those not familiar with the workings of the text and its British phraseology, a more guarded recommendation, after inspection of the book, is offered.

If ever there was a practical book for speedy consultation, the new edition of Doctor French's "Index to Differential Diagnosis" is that book.—*Walter E. Brown, M.D.*

Review of Medical Microbiology, Ernest Jawetz, Ph.D., M.D., Joseph L. Melnick, Ph.D. and Edward A. Adelberg, Ph.D., Lange Medical Publications, 1960, Los Altos, California, pp. 376, Price, $5.00.

This is the fourth edition of this book written by three professors of microbiology from the University of California and Baylor University. The book is very well written and concise, and in my opinion would fulfill two major areas of need in microbiology: (1) it would be an excellent book for a person wishing to review the entire field of microbiology rapidly, especially if details of methodology are unimportant and (2) it may well serve as a ready reference for the practicing physician. This second type usage is possible because of the manner in which the book is written. Each organism is described briefly under such headings as Morphology, Culture, Growth Characteristics, Antigenic Structure, Pathogenesis and Pathology, Clinical Findings, Diagnostic Laboratory Tests and Treatment. Antibiotic sen-

(Continued on Page 871)

BLUE CROSS UTILIZATION PERCENTAGES*

Year, 1959 Compared to First Nine Months, 1960

County	1959	1960	% Change
Adair	86.4%	153.2%	+66.8
Alfalfa	111.1	110.0	—1.1
Atoka	110.9	114.4	+3.5
Beaver	84.7	96.8	+12.1
Beckham	95.8	93.9	—1.9
Blaine	114.6	123.4	+8.8
Bryan	84.4	111.3	+26.9
Caddo	93.3	94.7	+1.4
Canadian	90.6	83.9	—6.7
Carter	83.3	91.1	+7.8
Cherokee	92.5	105.4	+12.9
Choctaw	121.3	133.3	+12.0
Cimarron	153.3	139.0	—14.3
Cleveland	91.1	118.0	+26.9
Coal	106.1	116.5	+10.4
Comanche	94.5	116.6	+22.1
Cotton	90.5	83.0	—7.5
Craig	100.5	108.0	+7.5
Creek	136.3	134.4	—1.9
Custer	79.7	111.7	+32.0
Delaware	106.0	95.9	—10.1
Dewey	87.9	107.8	+19.9
Ellis	84.8	83.9	—.9
Garfield	129.1	146.4	+17.3
Garvin	85.2	82.7	—2.5
Grady	72.4	97.5	+25.1
Grant	144.1	163.1	+19.0
Greer	72.3	95.9	+23.6
Harmon	90.2	122.5	+32.3
Harper	87.2	79.7	—7.5
Haskell	105.3	110.6	+5.3
Hughes	96.2	75.2	—21.0
Jackson	86.6	112.0	+25.4
Jefferson	151.6	132.0	—19.6
Johnston	72.3	63.0	—9.3
Kay	94.2	109.3	+15.1
Kingfisher	78.1	86.6	+8.5
Kiowa	89.2	80.2	—9.0
Latimer	103.3	117.0	+13.7
LeFlore	89.7%	105.5%	+15.8
Lincoln	117.9	111.5	—6.4
Logan	64.3	84.9	+20.6
Love	80.1	76.6	—3.5
McClain	97.6	81.8	—15.8
McCurtain	123.2	125.6	+2.4
McIntosh	92.3	144.4	+52.1
Major	101.4	128.2	+26.8
Marshall	81.3	119.1	+37.8
Mayes	85.4	99.1	+13.7
Murray	96.1	98.8	+2.7
Muskogee	90.2	112.9	+22.7
Noble	109.3	122.4	+13.1
Nowata	124.3	119.0	—5.3
Okfuskee	86.2	130.9	+44.7
Oklahoma	80.9	96.1	+15.2
Okmulgee	125.0	104.7	—20.3
Osage	121.2	112.9	—8.3
Ottawa	96.3	102.4	+6.1
Pawnee	117.9	141.4	+23.5
Payne	92.0	99.5	+7.5
Pittsburg	102.7	113.2	+10.5
Pontotoc	115.2	106.1	—9.1
Pottawatomie	87.4	90.9	+3.5
Pushmataha	116.4	146.4	+30.0
Roger Mills	110.1	112.9	+2.8
Rogers	99.8	127.0	+27.2
Seminole	77.3	97.9	+20.6
Sequoyah	125.9	117.4	—8.5
Stephens	101.4	101.3	—.1
Texas	108.4	138.7	+30.3
Tillman	103.4	91.5	—11.9
Tulsa	111.5	109.1	—2.4
Wagoner	85.2	104.1	+18.9
Washington	107.9	124.9	+17.0
Washita	79.9	124.2	+44.3
Woods	104.9	129.5	+24.6
Woodward	100.6	120.6	+20.0
Average	99.6	110.0	+10.4

*Utilization is on a paid basis and does not includes reserves or operating expenses.

Released by the Committee on Prepaid Medical Care for the Information and Education of OSMA Members.

Auxiliary News

Christmas Is Serving

Christmas is not just a time of year. It is a celebration and a recognition of a way of life. Christmas and the coming of the New Year afford us singular opportunity: service in every area, personal, church and organizational.

Mrs. John Wagner, National Chairman of our Community Service Committee, defines our work as: " . . . a unique service program designed for auxiliary members to help physicians in their effort to protect and improve the health of the people in the community." Foremost, we are urged to guide our membership into discovering definite needs of the community—not to duplicate existing services already covered by other groups. Then we are to obtain approval, and also to follow any recommendations, from our county medical societies. Finally, we must consider the interests of our own auxiliary members in each project or undertaking.

Excellent public relations (the former name of Community Service) can result from inviting service groups in each area to a meeting planned especially for them. Some auxiliaries give an annual award to a woman who has performed outstanding service in the field of health in the community. Some states and counties honor doctors' wives who are leaders in health or civic organizations. Why not discuss these possibilities at your next board or general meeting? Except for personal endeavor, no contribution to community service is more important than those we undertake as auxiliary projects. Be sure to keep our State Community Service Chairman informed about your projects and your progress. She is: Mrs. Tom C. Sparks, 627 Stanley, Ardmore.

Christmas Is Greeting

We wish to extend our warmest greetings of the season to WA-SAMA, the Woman's Auxiliary to the Student American Medical Association. In a few months SAMA will begin its fourth year as an organization. Never has a group shown more interest or enthusiasm than these young women, already seriously on their way to promoting the futures of their doctor husbands.

Christmas Is Remembering

In line with "future" doctors and the Christmas season, we should like to remind you that there is no more appropriate or acceptable Christmas gift, appreciation, or memorial, than contributions to A.M.E.F. It is not too late—it is always a timely thought. Just send your checks, together with the names and addresses of the recipients, together with your own name and address to your local chairman. In the event you have no county chairman, send them direct to our State A.M.E.F. Chairman: Mrs. F. H. McGregor, 928 N.E. 15th, Oklahoma City.

Some newer members may not know that our American Medical Education Foundation contributions can be ear-marked for our own University of Oklahoma School of Medicine. Most of us think of our money as helping only with salaries of instructors. True, a large portion is used toward teaching; but in addition, funds are also directed to the following sources: equipment, general operation, student aid, research, contingency fund, medical libraries, and building funds. Think of the pride your doctor will feel in knowing you "cared enough to give the best" —the American Medical Education Foundation.

Christmas Is Giving

Too often we evaluate our many contributions only on a local scale, failing to realize what a magnified picture the total presents. During the October Fall Conference held in Chicago Leonard W. Larson, M.D., President-Elect of the American Medical Association, made the following significant observations: "During 1959, for example, you contributed 3,108,314 hours of volunteer and philanthropic service to your communities. This impressive amount of time is equal to

(Continued on Page 871)

Deaths

Harold A. Shoemaker, Ph.D.
1896-1960

Harold A. Shoemaker, Ph.D., founder and first director of the poison information center at the University of Oklahoma School of Medicine, died November 2, 1960.

A native of New Ringgold, Pennsylvania, Doctor Shoemaker received degrees from Valparaiso University and the University of Washington before obtaining his Ph.D. from Yale in 1931.

Associated with the University of Oklahoma School of Medicine since 1920, he was professor of pharmacology and toxicology, had served as vice-chairman of the department of pharmacology since 1953 and, in addition, was a former assistant dean and acting dean of the school.

In 1956, he organized the poison information center. It was among the first ten in the nation and the first to operate on a statewide basis.

Doctor Shoemaker was a member of the American Pharmaceutical Association, had served on the executive committee of the American Association of Poison Control Centers and as chairman of the association's committee on publications and technical information.

John L. Day, M.D.
1877-1960

John L. Day, M.D., 83-year-old physician, died in Woodward, October 18, 1960.

Born in Webster City, Iowa, Doctor Day graduated from the College of Physicians and Surgeons in Memphis in 1910. After establishing his practice in Norman, he became assistant physician at Central State hospital and later served as assistant superintendent. In 1934, he assumed duties as superintendent at Western State hospital at Fort Supply. Upon his retirement in 1948, he moved to Woodward.

Doctor Day was honored by the Oklahoma State Medical Association in 1951 when he was made a Life Member in recognition of his years of service to the profession. In addition, he was a member of the American Psychiatric Association and a life member of the Southern Medical Association.

Waldo B. Newell, Sr., M.D.
1887-1960

Waldo B. Newell, Sr., M.D., Enid physician since 1919, died October 17, 1960.

A native of Anderson County, Tennessee, Doctor Newell graduated from Vanderbilt University School of Medicine. He came to Oklahoma in 1911, practicing first in Hunter, moving to Enid in 1919.

Doctor Newell was past-president of Garfield-Kingfisher County Medical Society.

Last May, Doctor Newell was honored for his service to the medical profession when the Oklahoma State Medical Association awarded him an Honorary-Life Membership.

Charles J. Alexander, M.D.
1900-1960

Charles J. Alexander, M.D., long-time Clinton physician, died November 12, 1960 in an Oklahoma City hospital.

Born in 1900, the 60-year-old physician graduated from the Washington University School of Medicine in 1924. After taking his internship in St. Louis, he established his practice in Clinton and had remained there since that time.

BOOK REVIEWS

(Continued from Page 867)

sitivities are also included. The clinical findings and diagnostic tests are emphasized and less stress is placed on the "pure" microbiology. However, all of the topics are fairly short so that the physician can quickly review the characteristics of any organisms that he might encounter in clinical practice.

The features listed above tend to make the book less valuable for laboratory personnel. However, even they might find it of value as a ready reference.

A section of virology is unusually well organized and useful from the clinical standpoint. For anyone interested in a relatively short summary of the current status of virology and a ready reference on virus diseases, the book might actually be worth the cost on this feature alone. An excellent chart on laboratory diagnosis of virus diseases is included.

This book should appeal to many practicing doctors, but for the laboratory worker, a more detailed reference is indicated. *Henry T. Russell, M.D.*

AUXILIARY NEWS

(Continued from Page 869)

Margaret Wolfe's—National Auxiliary Secretary—working for 354 years, 24 hours a day without stopping.

"In just eight years, since 1952, you have engineered the drive for, and raised, $1,022,725 for use as loans and scholarships for careers in medicine. To do this, you have had to come up with $354 daily for eight years. In addition, you organized 1,931 Future Nurses Clubs, promoted health career days, and participated in county fairs, science fairs, health forums, and career clubs for young people.

"What kind of a person is the average Woman's Medical Auxiliary member? She is a tireless worker when she is inspired by a cause. She is a planner who can look ahead to future needs. She is devoted, clever, practical, and resourceful." So, to all of you "devoted, clever, practical, and resourceful" Auxiliary members, and to each of your families, we wish to extend the very warmest Christmas wishes and our deepest desire: a healthy, happy 1961!

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association, December, 1935.

One Answer to State Medicine

CARL PUCKETT, M.D.
Oklahoma City

The great agricultural sections of our country are rapidly becoming free of bovine tuberculosis through cooperation of the U. S. Department of Agriculture with the various state departments of agriculture and the people of these states. This is having and will have a decided influence in reduction of the tuberculosis rate in the territory involved. In fact this program has already shown its effect in the nation-wide reduction of tuberculosis; for without intelligent application of newer knowledge about this disease, we would have had a marked increase through the depression. This bovine tuberculosis program means particularly a reduction in bone, joint, intestinal and gland tuberculosis. In the past, in many sections of the country, bovine tuberculosis has accounted for twenty-five per cent of childhood infections. From this war on bovine infections we will see fewer and fewer crooked spines and stiff knees among children. It will effectively lead the way for the Government program for crippled children which also will be a Federal, state and people's cooperative effort for handicapped children.

The people are learning about childhood tuberculosis infection, and that if proper attention is given these infected children before active illness begins they may be protected. We are doing all we can to see that the public is informed. We are referring those children whom we find to react to tuberculin test in our surveys, to the family physician. Most of these are preclinical cases but they need protective care and supervision. When a physician tells the parents of these children, or young high school or college students, there is nothing the matter because they look well, he is giving them a false sense of security. The fact that the stethoscope reveals nothing does not change the picture; it is usually lung-gland infection and there is nothing to be heard. The x-ray will usually reveal something abnormal, and give information on how much treatment is needed. Even where the x-ray reveals nothing in a child or youth who reacts to the tuberculin test, observation and repeat tests should be made at six months' intervals. Defects and bad health practices should be corrected. In all cases look for the source of infection, for if contact continues all the physician does may be in vain. An inexpensive way to locate possible unrecognized cases in the home is to give the tuberculin test to all. Then look more thoroughly into the worst reactors, if any.

PHYSICIAN PLACEMENT

General Practice

John William Kennard, M.D., Blowing Rock Hospital, Blowing Rock, North Carolina; married; age 29; Bowman Gray School of Medicine, 1956; veteran; available August 29, 1960.

Carle H. Schroff, M.D., 3811 State Line, Kansas City 11, Missouri: Age 31; married; University of Kansas, 1959; veteran; available August, 1960.

Floyd E. Webb, Jr., M.D., 2527 Webster Drive, Alexandria, Louisiana; age 27; married; University of Oklahoma, 1957; available August, 1961.

Kenneth T. Woodsides, M.D., 1923 19th Loop, Sandia Base, Albuquerque, New Mexico; age 27; married; Medical College of Alabama, 1957; available April, 1961.

Internal Medicine

Spencer E. Berry, M.D., 13630 Flynn, Le Puente, California; single; University of Oklahoma, 1950; available now.

Jeanne B. Johnson, M.D., 4917 SE Cornell Drive, Bartlesville, Oklahoma; age 31; married; University of Oklahoma School of Medicine, 1955; specialty, internal medicine; eligible, immediately.

Sam A. Kinard, Jr., 3522 E. 17th Avenue, Denver 6, Colorado; age 29; married; Baylor University of Medicine, 1956; 2 years medical residency and 2 years cardiology residency; available July, 1961.

Jack G. Smith, M.D., 812 North Third St., Bellaire, Texas; age 32; married; University of Texas School of Medicine, 1953; available January, 1961.

Thomas Turner Walton, Jr., M.D., 7375 Churchill, Detroit, Michigan: Age 29; married; Baylor College of Medicine, 1955; Board eligible; veteran; specialty, internal medicine; desires group or associate practice; eligible, July 1961.

George F. Winks, Jr., 217 S. Boulevard, Apt. 1, Richmond, Virginia; age 28; married; Medical College of Virginia, 1957; board eligible; specialty, internal medicine; available July 1, 1961.

Locum Tenens

Harold W. Calhoon, M.D., Wesley Hospital, Oklahoma City. One year residency in Internal Medicine. Available July 1 to September 15th, 1960.

Russell M. Preston, M.D., 476 San Juan, Oak Harbor, Washington, desires six month's work in General Practice between time of separation from military service to beginning of residency training, January-July, 1960.

Obstetrics and Gynecology

Walter G. Crowe, M.D., Mercy Hospital, Pride 4, Locust St., Pittsburgh, Pennsylvania; age 39; married; University of Tennessee College of Medicine, 1955; board eligible; available March 10, 1961.

Gerald R. Keilson, M.D., Medical Arts Building, Dallas, Texas, age 31, married, University of Texas, 1953, board qualified, veteran, available in July 1960.

Juan C. Ruiz, M.D., 350 Park Ave., Lexington, Kentucky; age 36; married; University of San Marcos Medical School 1952; no military obligations; available July 1, 1960.

Robert B. Williams, M.D., 27 Normandy Road, Auburndale 66, Massachusetts; married; age 30; Tulane University, 1955; board certified; available July 1, 1961.

Surgery

David S. Bachman, M.D., 301 North 2nd St., Allentown, Pennsylvania; age 38; married; University of Buffalo, 1947; board certified general surgery; specialty, broncho-esophagology and thoracic surgery; available immediately.

Emmet J. Thorpe, M.D., 6811 Stockton Drive, Knoxville, Tennessee; age 32; married; George Washington University School of Medicine, 1951; completed Part I of the requirements of the American Board of Orthopedic Surgery; available immediately.

MISCELLANEOUS ADVERTISEMENTS

For Sale: G.E. 100-milliamper X-ray machine. Good condition. Contact John C. Wagner, M.D., Western State Hospital, Fort Supply, Oklahoma.

WANTED: Internist to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

FOR SALE: 100 M.A. X-ray machine. Contact C. P. Taylor, M.D., 1201-D East 5th, Ada, Oklahoma. FE 2-4424.

WANTED: Surgeon to join old established group in town of 10,000 population in West Texas. Need not be Board certified but with adequate residency training. Write Key A, THE JOURNAL, Oklahoma State Medical Association, P.O. Box 9696, Oklahoma City, Oklahoma.

WANTED: Board qualified surgeon and urologist to join Community Hospital-Clinic Staff. Contact Donald S. Leham, M.D., Medical Director, Elk City, Oklahoma.

Help Fight TB



Use Christmas Seals

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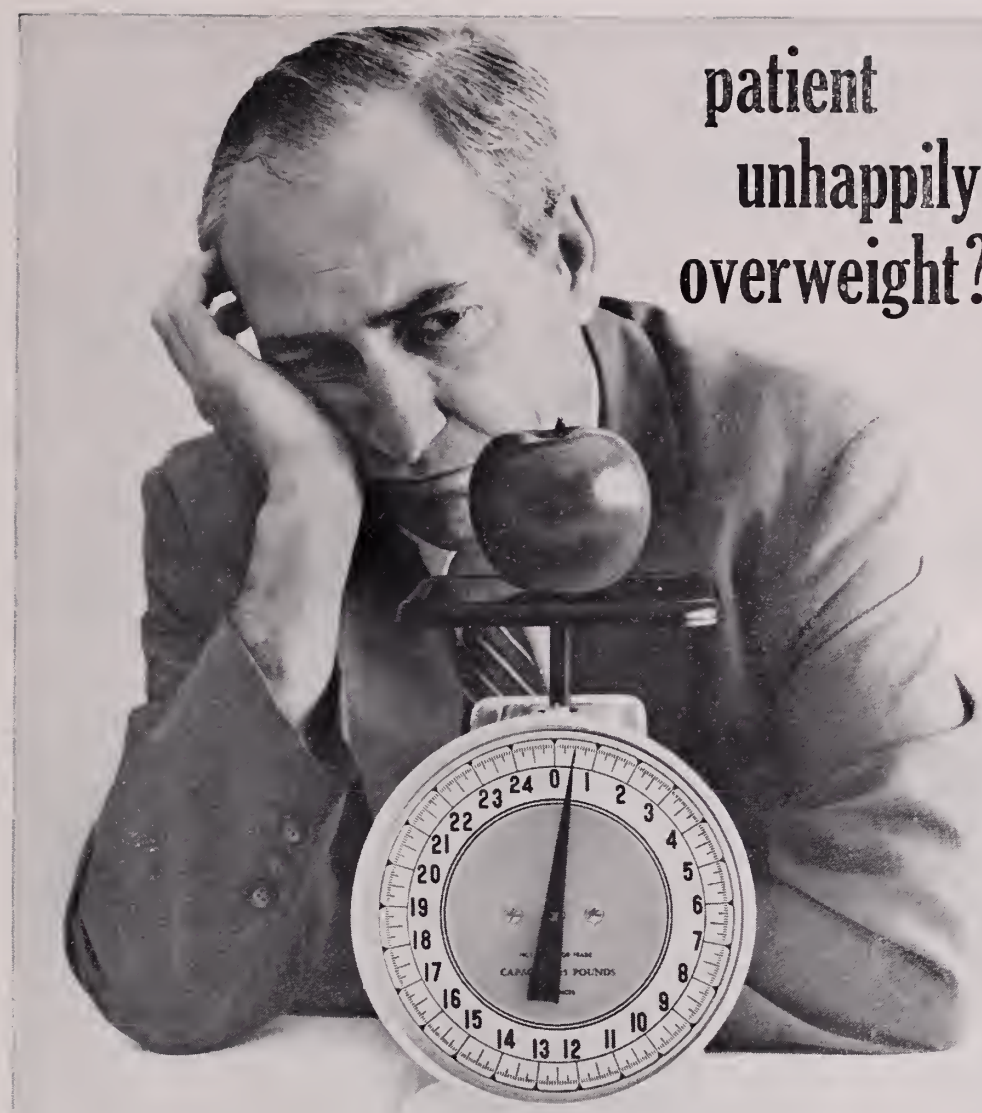
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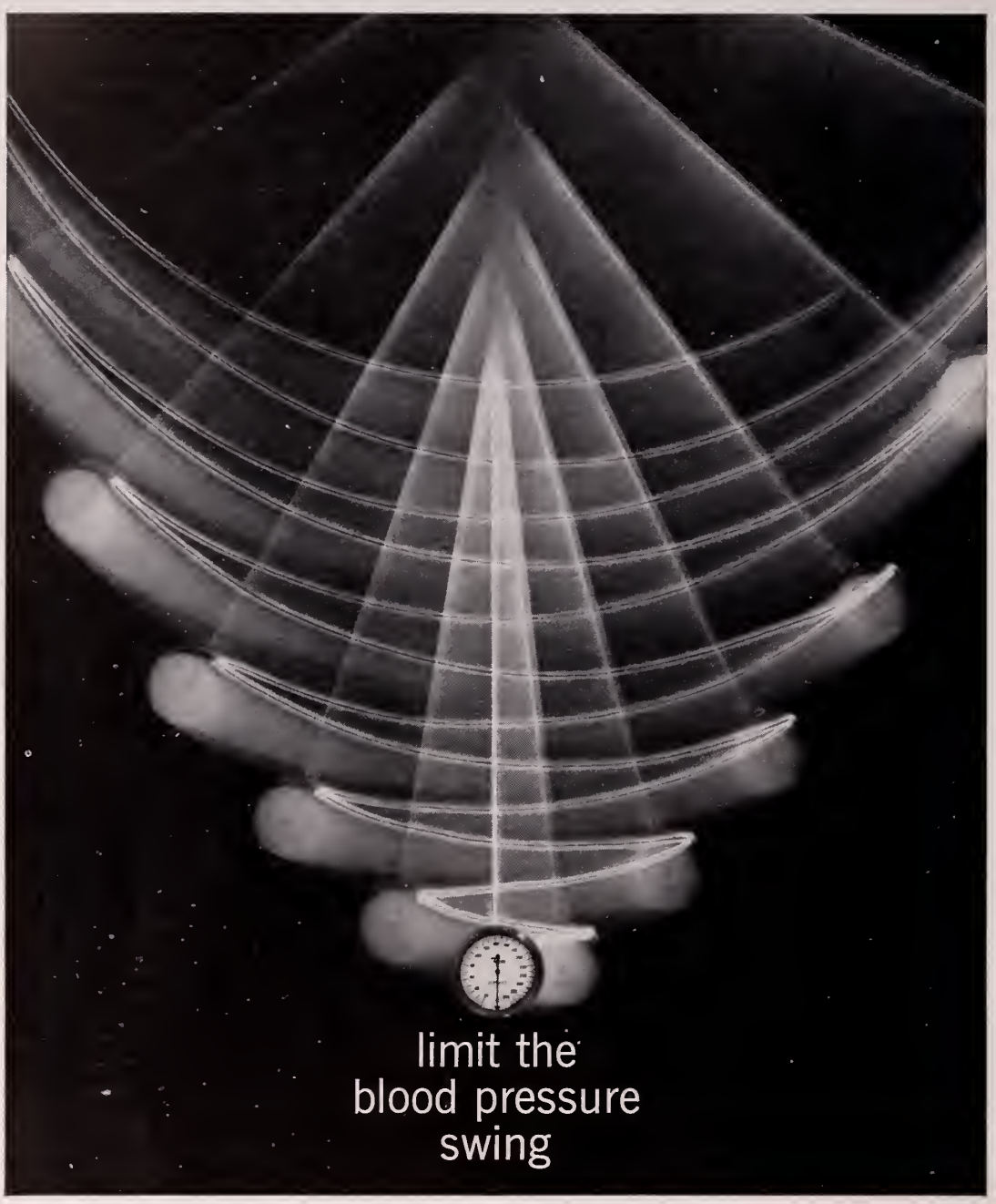
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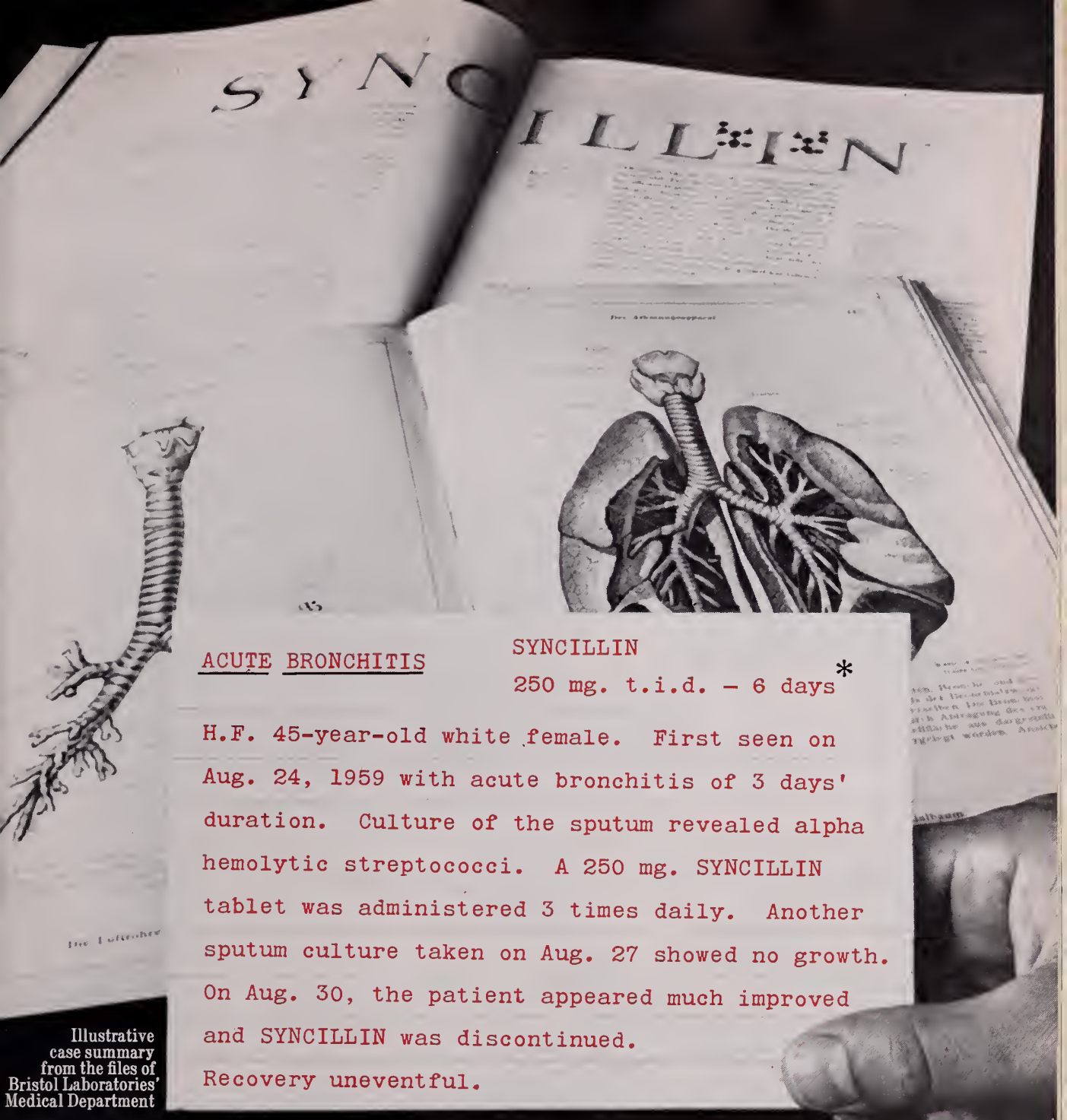
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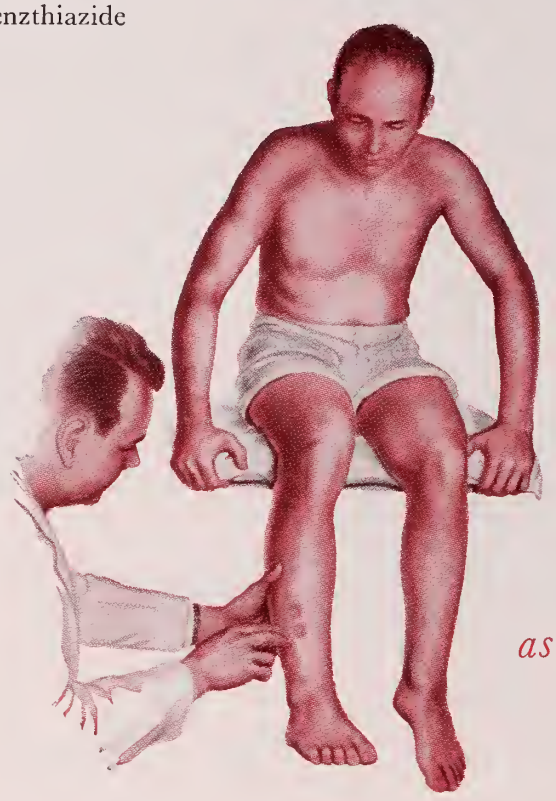
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Soma Compound is an entirely new, totally different analgesic combination that contains three drugs. First, Soma: a new type of analgesic that has proved to be highly effective in relieving both pain and tension.* Second, phenacetin: a "standard" analgesic and antipyretic. Third, caffeine: a safe, mild stimulant for elevation of mood. As a result, the patient gets more complete relief than he does with other analgesics.

Soma Compound is nonnarcotic and nonaddicting. It reduces pain perception without impairing the natural defense reflexes.*

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Supplied: Bottles of 50 apricot-colored, scored tablets.

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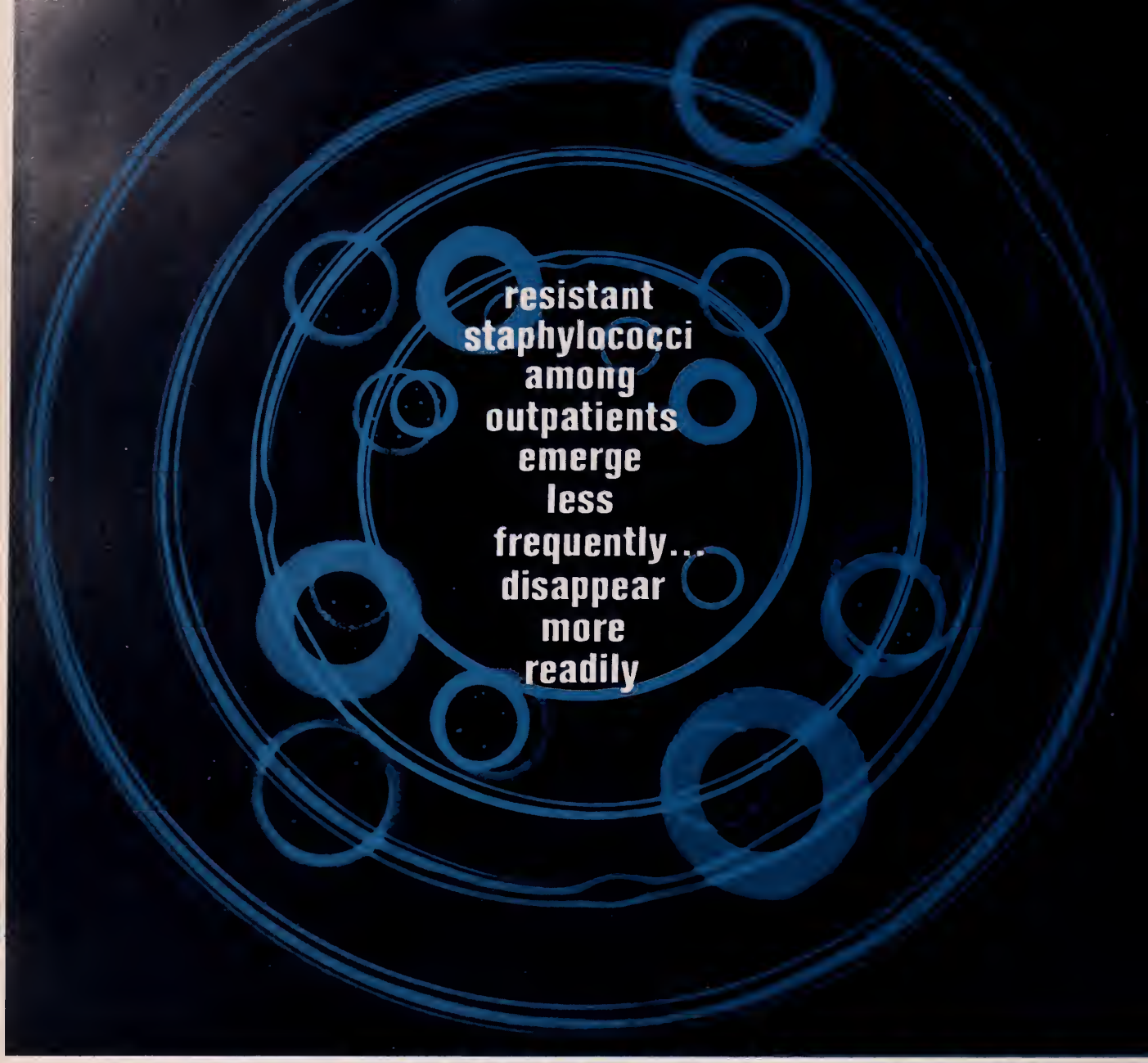
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Composition: Same as Soma Compound plus ¼ grain codeine phosphate.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 white, lozenge-shaped tablets; subject to Federal Narcotics Regulations.

References available on request.

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chloramphenicol, Parke-Davis

IN VITRO SENSITIVITY OF COAGULASE-POSITIVE STAPHYLOCOCCI TO CHLOROMYCETIN FROM 1955 TO 1959*



These sensitivity tests were done by the disc method on 310 strains of coagulase-positive staphylococci. Strains were isolated from patients seen in the emergency room. It should be noted that among inpatients, resistant strains were considerably more prevalent.

*Adapted from Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* **173**:475, 1960.

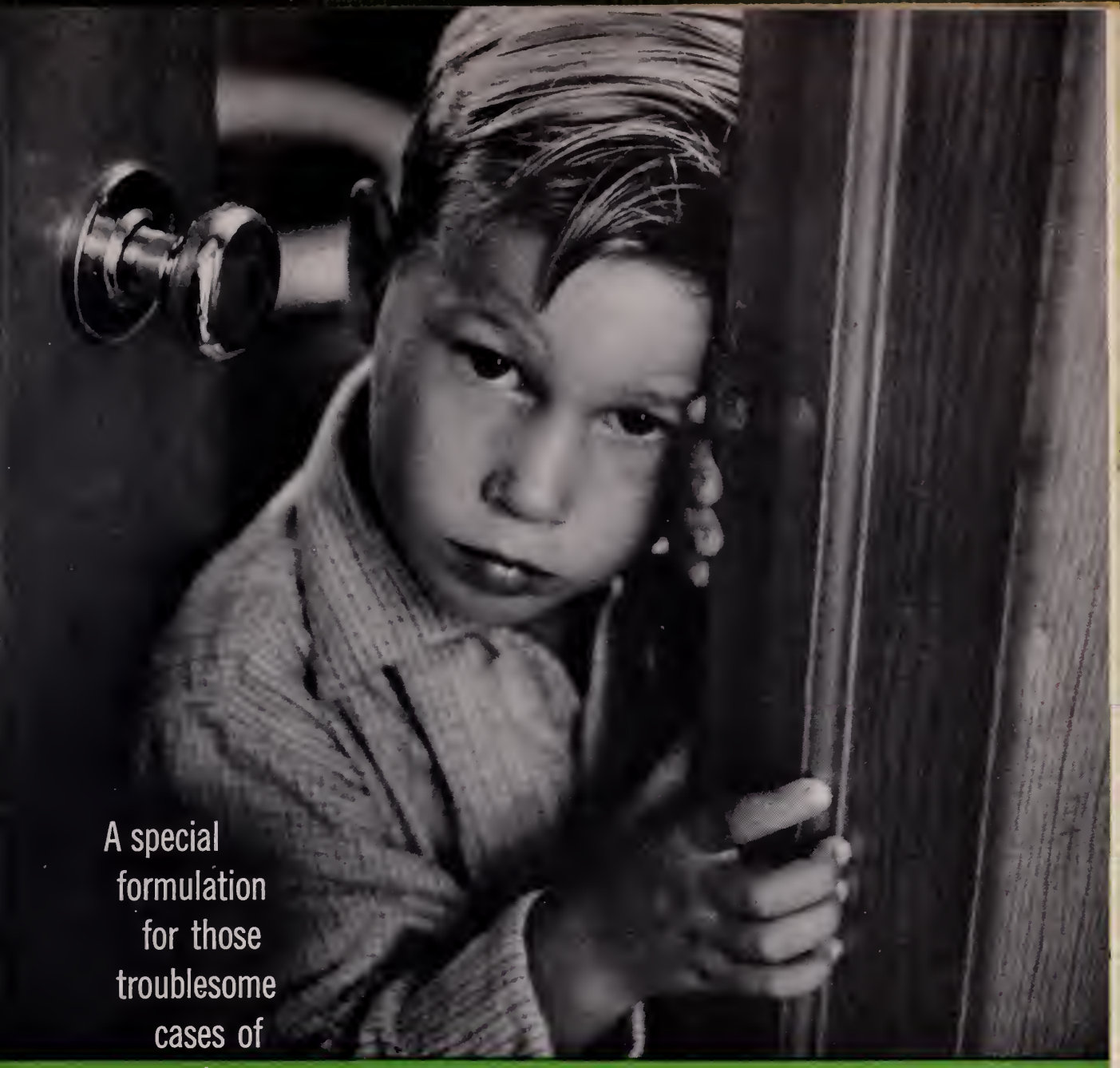
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CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

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Donnagel® with paregoric equivalent

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atropine sulfate	0.0194 mg.
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DONNAGEL® — the basic formula — when paregoric or an antibiotic is not required.

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(Continued from Page 866)

AMERICAN COLLEGE OF RADIOLOGY, Drake Hotel, Chicago, Feb. 8-11. William S. Stronach, LL.B., 20 N. Wacker Drive, Chicago 6, Executive Director.

AMERICAN UROLOGICAL ASSOCIATION, WESTERN SECTION, Hotel Sahara, Las Vegas, Nev., Feb. 6-9. Edmund Crowley, M.D., 1930 Wilshire Blvd., Los Angeles 57.

CENTRAL SURGICAL ASSOCIATION, Park Plaza Hotel, St. Louis, Feb. 16-18. Angus D. McLachlin, Victoria Hospital, London, Ontario, Canada, Secretary.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER POSTGRADUATE SHORT COURSE, Cerebral Vascular Disease. Feb. 8. Medical school auditorium. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

MARCH

AMERICAN COLLEGE OF ALLERGISTS, Graduate Instructional Course and Seventeenth Annual Congress. March 12-17. Statler Hilton, Dallas, Texas. Write John D. Gillaspie, M.D., Treasurer, 2141 14th Street, Boulder, Colorado.

AMERICAN COLLEGE OF SURGEONS, SECTIONAL MEETINGS FOR SURGEONS AND GRADUATE NURSES, Hotels Bellevue-Stratford, Ben Franklin, and Sylvania, Philadelphia, March 6-9. William E. Adams, M.D., 40 E. Erie St., Chicago 11, Secretary.

AMERICAN SURGICAL ASSOCIATION, Boca Raton Hotel, Boca Raton, Fla., Mar. 20-24. W. A. Altemeier, M.D., Cincinnati General Hosp., Cincinnati 29, Ohio, Secretary.

MISSOURI STATE MEDICAL ASSOCIATION, Hotel Muehlebach, Kansas City, Mar. 18-21. John I. Matthews, M.D., 302 Bolivar, Jefferson City, Mo., Secretary.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY. March 6-9. The Roosevelt Hotel, New Orleans, Louisiana. Write Mannie D. Paine, Jr., M.D., Secretary, The New Orleans Graduate Medical Assembly, 1430 Tulane Ave., New Orleans 12, La.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER POSTGRADUATE SHORT COURSE, Urology-Symposium and C. B. Taylor Lectureship. March 8. Medical School auditorium. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

APRIL

ALABAMA, MEDICAL ASSOCIATION OF THE STATE OF (members and guests), Hotel Stafford, Tuscaloosa, Apr. 27-29. Mr. W. A. Dozier Jr., 19 S. Jackson St., Montgomery 4, Ala., Executive Secretary.

AMERICAN ACADEMY OF GENERAL PRACTICE, Miami Beach, Fla., Apr. 13-20. Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Mo., Executive Director.

AMERICAN ACADEMY OF NEUROLOGY (members and guests), Sheraton-Cadillac Hotel, Detroit, Apr. 27-29. Mrs. J. C. McKinley, 4307 E. 50th St., Minneapolis 17, Executive Secretary.

AMERICAN ACADEMY OF PEDIATRICS, spring meeting, Sheraton-Park Hotel, Washington, D.C., Apr. 10-12. For information write E. H. Christopherson, M.D., 1801 Hinman Ave., Evanston, Ill., Executive Director.

AMERICAN ASSOCIATION FOR THORACIC SURGERY, Sheraton Hotel, Philadelphia, Apr. 24-26. Hiram T. Langston, M.D., 308 Carondelet Bldg., 7730 Carondelet Ave., St. Louis 5, Secretary.

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, Americana Hotel, Miami Beach, Fla., Apr. 21-28. Mr. Donald F. Richardson, 79 W. Monroe St., Chicago 3, Executive Secretary.

ARKANSAS, MEDICAL SOCIETY (open to A. M. A. members), Hotel Marion and Robinson Auditorium, Little Rock, Apr. 16-19. Mr. Paul C. Schaefer, 218 Kelley Bldg., P.O. Box 1345, Fort Smith, Ark., Executive Secretary.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER POSTGRADUATE SHORT COURSE, Surgery—Techniques of Cardiac Resuscitation. April 12. Medical school auditorium. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

UNIVERSITY OF TEXAS POSTGRADUATE SCHOOL OF MEDICINE, Second Annual Contact Lens Course. April 19, 20, 21. Houston, Texas. Course limited to board certified ophthalmologists or residents and fellows in ophthalmology. Write University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston, Texas.

SOUTHWESTERN SURGICAL CONGRESS (A. M. A. members may attend), St. Louis, Apr. 10-13. Mary O'Leary, 301 Pasteur Bldg., Oklahoma City 3.

MAY

AMERICAN COLLEGE OF PHYSICIANS, Americana Hotel, Miami Beach, Fla., May 8-12. Edward C. Rosenow Jr., M.D., 4200 Pine St., Philadelphia 4, Executive Director.

AMERICAN GYNECOLOGICAL SOCIETY, The Broadmoor, Colorado Springs, Colo., May 29-31. Albert H. Aldridge, M.D., 899 Park, Ave., New York 21, President.

AMERICAN OPHTHAMOLOGICAL SOCIETY (members only), The Homestead, Hot Springs, Va., May. Dr. Joseph A. C. Wadsworth, 108 E. 68th St., New York 21, Executive Secretary.

AMERICAN ORTHOPAEDIC ASSOCIATION (members and guests), The Ahwahnee, Yosemite, Calif., May 22-25. Lee Ramsay Straub, M.D., 535 E. 70th St., New York 21, Secretary.

AMERICAN PEDIATRIC SOCIETY, Hotel Traymore, Atlantic City, May 2-3. Conrad M. Riley, Denver General Hospital, Denver 4, Secretary.

(Continued on Page xxxvii)

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(Continued from Page xxxiv)

AMERICAN PSYCHIATRIC ASSOCIATION, Morrison Hotel, Chicago, May 8-12. C. H. Hardin Branch, M.D., 156 Westminster Ave., Salt Lake City 15, Utah, Secretary.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Eden Roc Hotel, Miami Beach, Fla., May 5-7. Mr. G. Tod Bates, 350 Post St., San Francisco 8, Executive Director.

AMERICAN THORACIC SOCIETY, Netherland-Hilton, Cincinnati, May 22-24. Mr. Frank W. Webster, 1790 Broadway, New York 19, Executive Secretary.

AMERICAN UROLOGICAL ASSOCIATION, INC., Biltmore Hotel, Los Angeles, May 22-25. Mr. William P. Didusch, 1120 N. Charles St., Baltimore 1, Executive Secretary.

KANSAS MEDICAL SOCIETY (members and guests), Broadview Hotel, Wichita, May 1-3. Mr. Oliver E. Ebel, 315 W. Fourth, Topeka, Kan., Executive Secretary.

LOUISIANA STATE MEDICAL SOCIETY, Hotel Roosevelt, New Orleans, May 8-10. C. Grenes Cole, M.D., 1430 Tulane Ave., New Orleans 12, Secretary-Treasurer.

NEW MEXICO MEDICAL SOCIETY, La Fonda, Santa Fe, N.M., May. Mr. Ralph B. Marshall, 220 First National Bank, Albuquerque, N. M., Executive Secretary.

OKLAHOMA STATE MEDICAL ASSOCIATION, Mayo Hotel, Tulsa, Okla., May 7-9. Mr. R. H. Graham, Box 9696, Oklahoma City, Okla., Executive Secretary.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER POSTGRADUATE SHORT COURSE, Pediatrics—Infectious Diseases in Infancy and Childhood. May 10. Medical school auditorium. Write Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th, Okla. City, Okla.

JUNE

AMERICAN COLLEGE OF CHEST PHYSICIANS, Hotel Commodore, New York City, June 22-26. Mr. Murray Kornfeld, 112 E. Chestnut St., Chicago, Executive Director.

AMERICAN DERMATOLOGICAL ASSOCIATION, INC. (members only), Castle Harbour Hotel, Tucker's Town, Bermuda, June 16-20. Wiley M. Sams, M.D., 25 S.E. Second Ave., Miami 32, Fla., Secretary.

AMERICAN NEUROLOGICAL ASSOCIATION, Hotel Claridge, Atlantic City, June 12-14. Melvin D. Yahr, M.D., Neurological Institute, 710 W. 168th St., New York 32, Executive Secretary.

AMERICAN RHEUMATISM ASSOCIATION, Hotel Roosevelt, New York City, June 22-23, 1961. Mr. Gerard W. Speyer, 10 Columbus Circle, New York 19, Executive Secretary.

SOCIETY OF NUCLEAR MEDICINE, Penn Sheraton Hotel, Pittsburgh, June 14-17. Mr. Samuel N. Turiel, 430 N. Michigan Ave., Chicago 11, Executive Administrator.

JULY

INTERNATIONAL COLLEGE OF SURGEONS, NEW ENGLAND REGIONAL MEETING, Chatham Bars Inn, Chatham, Cape Cod, Mass., July 1-4. M. Leopold Brodny, M.D., 4646 N. Marine Dr., Chicago 40, Treasurer.

SEPTEMBER

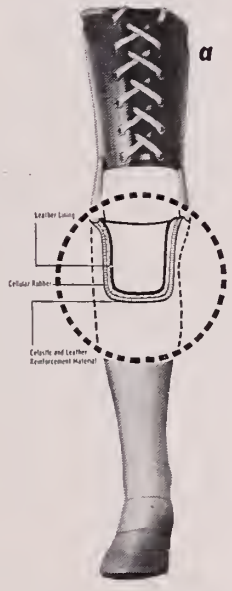
AMERICAN HOSPITAL ASSOCIATION, Atlantic City, Sept. 25-28. Mr. Maurice J. Norby, 840 North Lake Shore Dr., Chicago 11, Secretary.

COLORADO STATE MEDICAL SOCIETY, Shirley-Savoy Hotel, Denver, Sept. 19-21. Mr. Harvey T. Sethman, 835 Republic Bldg., Denver 2, Executive Secretary.

OCTOBER

AMERICAN ACADEMY OF PEDIATRICS, Palmer House, Chicago, Oct. 2-5. E. H. Christopherson, M.D., 1801 Hinmann Ave., Evanston, Ill., Executive Director.

AMERICAN COLLEGE OF SURGEONS, Chicago, Oct. 2-6. William E. Adams, M.D., 40 E. Erie St., Chicago 11, Secretary.



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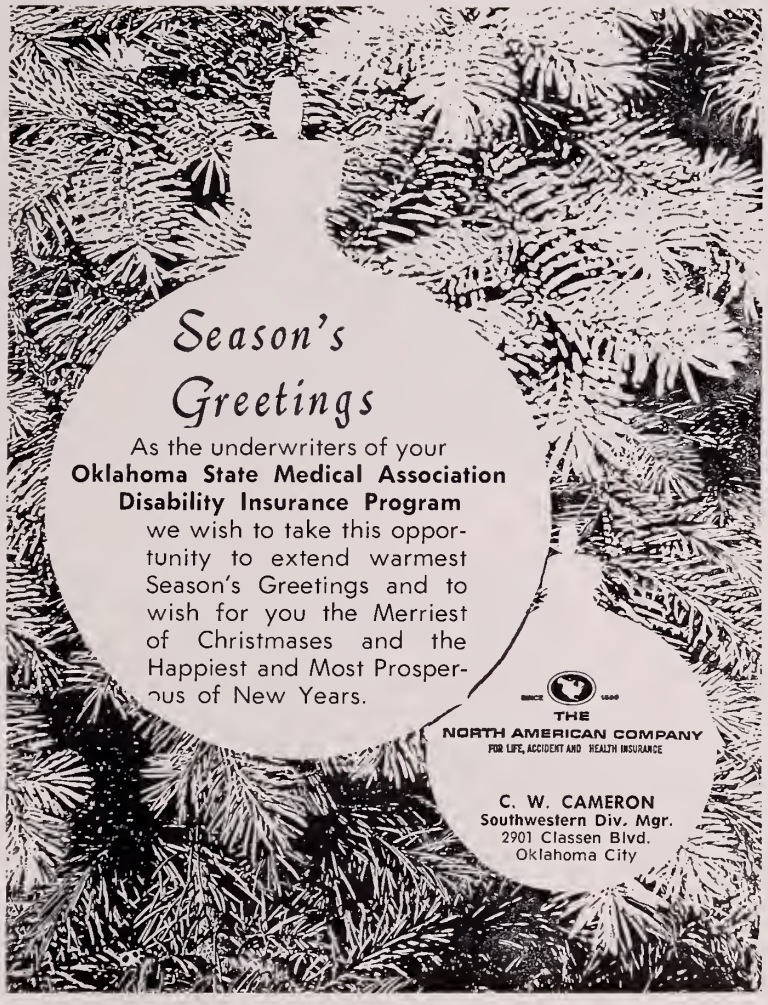
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[1]New and Nonofficial Drugs 1959, p. 644.
[2]Duncan's Diseases of Metabolism, 4th ed., 1959, p. 412.

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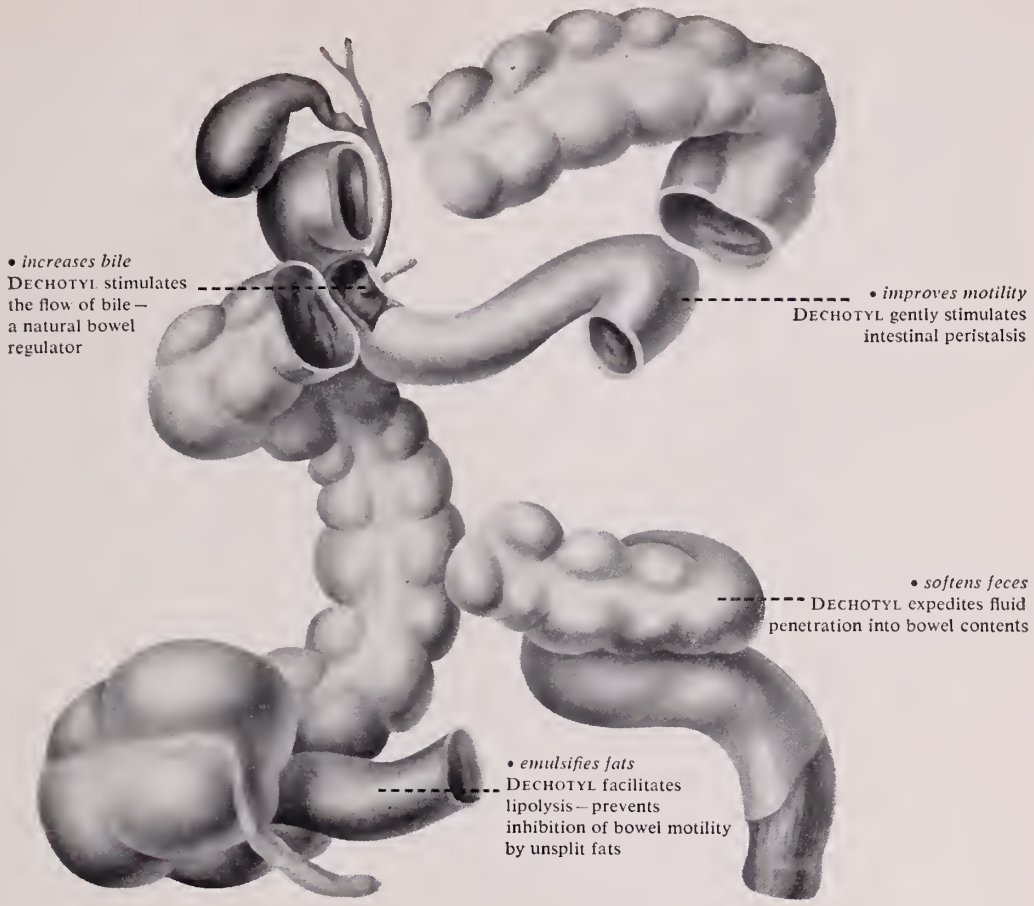
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